

Improved Viral Safety was the main reason why I.C. patients have previously switched products.

Inter-Continental Findings

Reasons for Past Switching - I.C. Patients -

#1 Reason for Switching

Safer product - less exposure to human protein	58%
Doctor/nurse recommendation	17%
Less inhibitor incidence	4%
Peer recommendation	4%
Hemophilia Society recommendation	4%
Free give away for 1 year	4%
Improved bacterial safety	4%
Developed viral infection	4%

Secondary Reasons for Switching*

Safer product - less exposure to human protein	38%
More potent	13%
Government edict, <16 age	13%
Easier to use	8%
Less inhibitor incidence	4%
Changed healthcare provider	4%
Concern of CJD	4%
Went to prophylaxis	4%

*Respondents could list multiple secondary reasons for switching

n = 24



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Older I.C. patients rely heavily on their physicians to guide their switching decisions.

Inter-Continental Findings

**Past Switching Influencers
- I.C. Patients -**

Most Influential

Secondary Influencers

<18

≥18

Doctor

Own research

**Hemophilia Treatment Center/
hospital**

Government Agency

Hemophilia Society

Other patients

Parents/family

Nurse

<18

≥18

25%

62%

31%

0%

18%

13%

13%

25%

13%

0%

0%

0%

0%

0%

0%

0%

n = 16

n = 8

<18

≥18

19%

0%

13%

0%

0%

0%

19%

13%

13%

38%

25%

13%

6%

25%

6%

0%

n = 16

n = 8

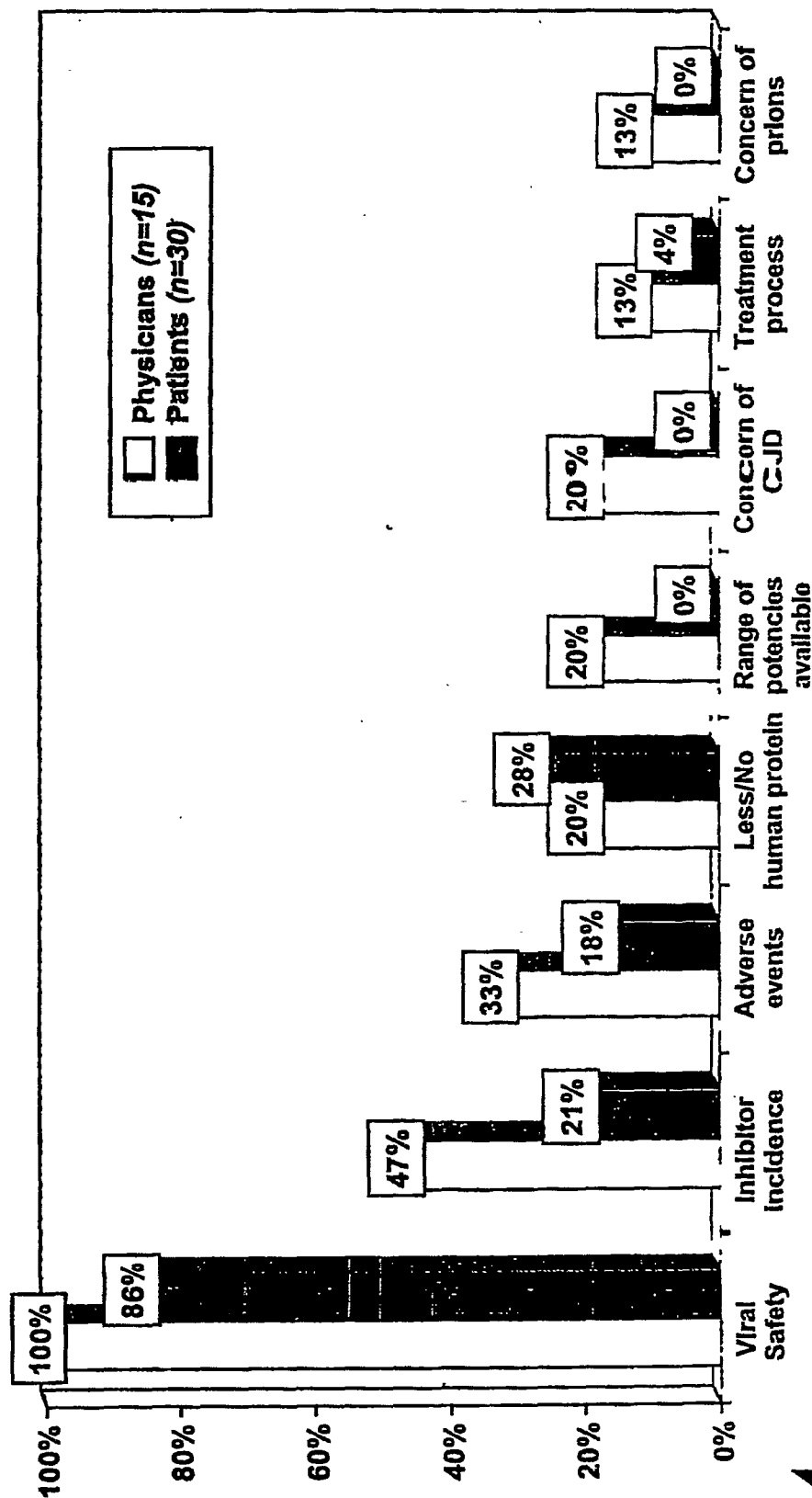


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Viral Safety in general is the element considered most important by both physicians and patients.

Inter-Continental Findings

Unprompted Elements of Safety



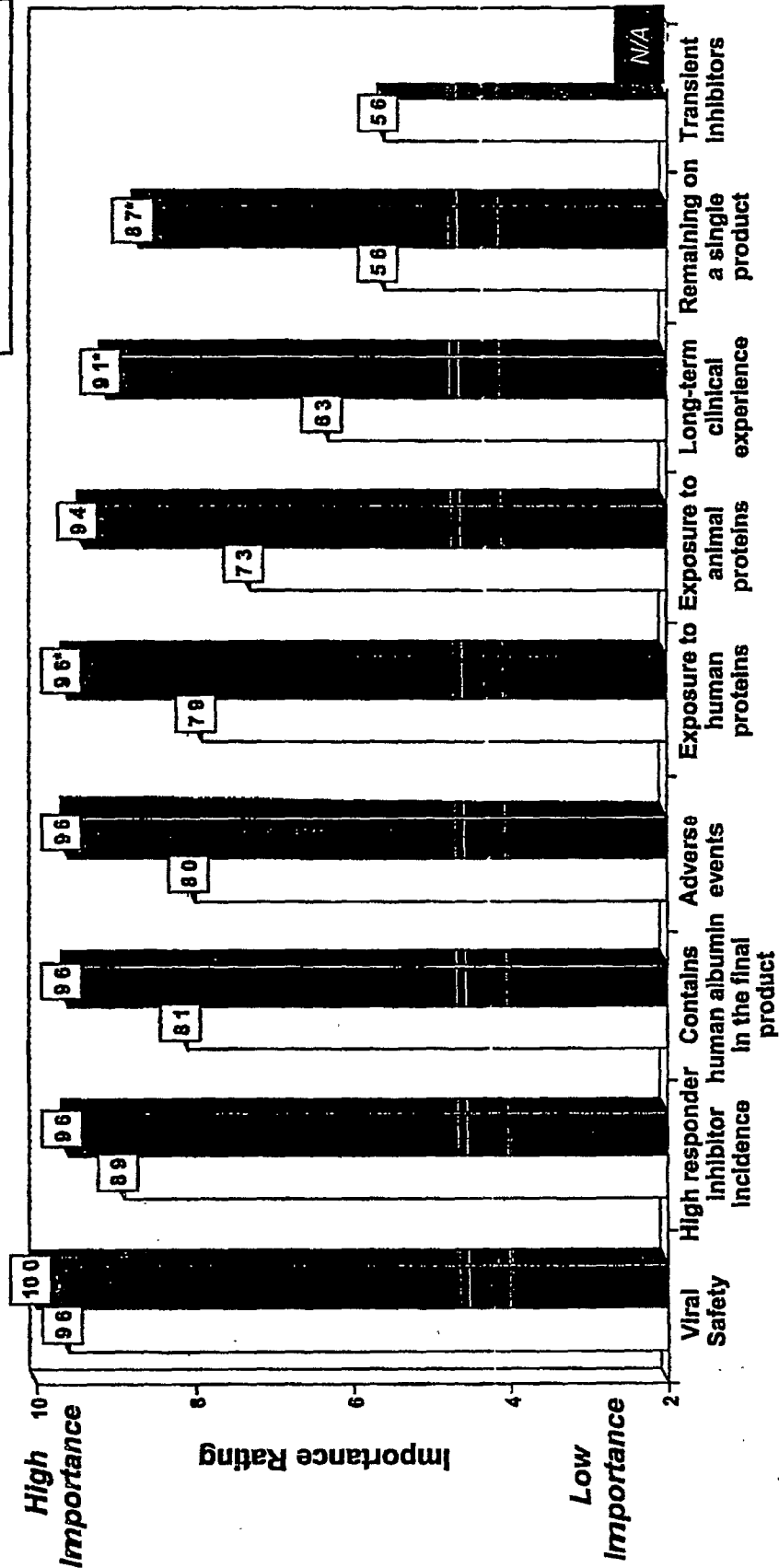
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Patients place a higher importance on all safety elements than do physicians.

Inter-Continental Findings

Safety Element Importance

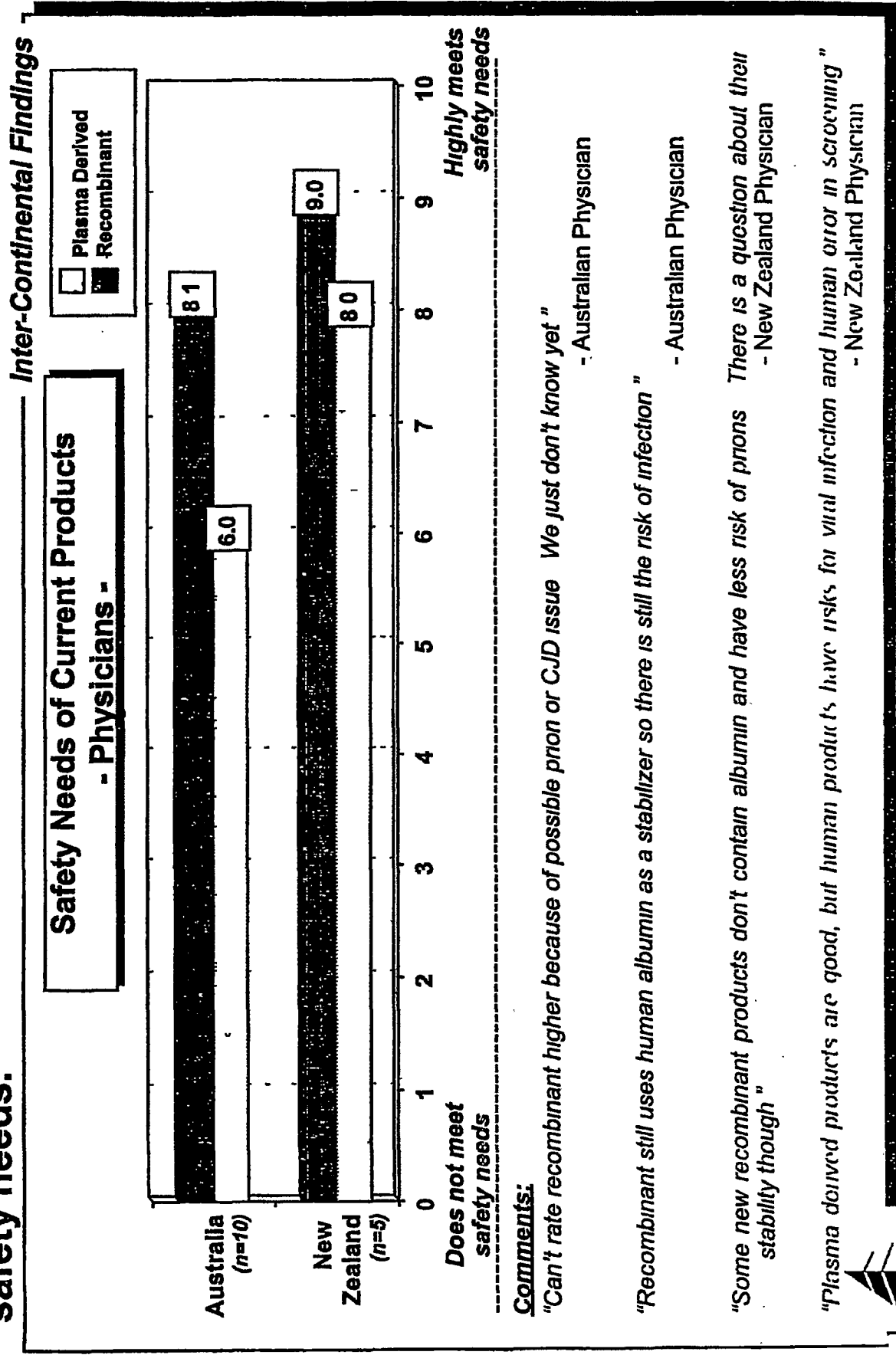
Physicians (n=15)
Patients (n=30)



*More important among New Zealand patients



While an improvement, even the current recombinant products still do not completely satisfy Australian and New Zealand physicians' safety needs.

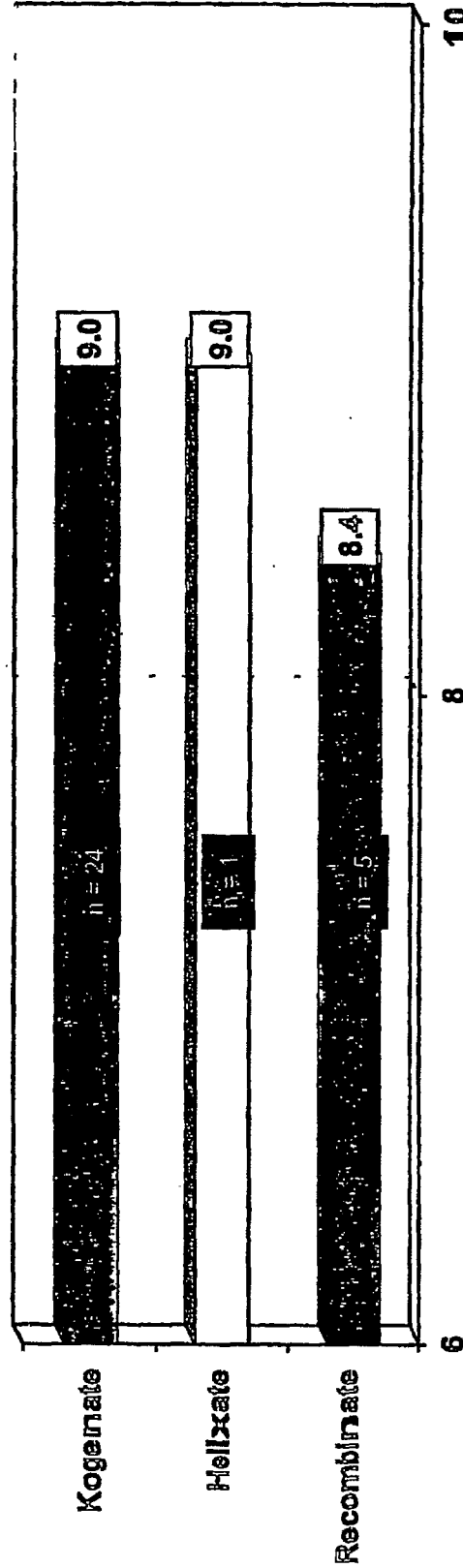


MARII

Recombinate users give their product lower ratings in terms of meeting their safety needs.

Inter-Continental Findings

Safety Needs of Current Product - Patients



Does not meet safety needs

Highly meets safety needs

Comments

"According to our doctor, it is the safest product on the market"

- Australian Kogenate User

"I'm concerned about the long-term impact recombinant products will have on my body"

- Australian Recombinate User

"I'm not sure what types of diseases Chinese hamsters have"

- New Zealand Recombinate User

"Helixate is a lot better than AHF"

- Australian Helixate User



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I.C. physicians rate Baxter and Bayer equally. Both receive much higher ratings than the local plasma derived supplier, Corby AHF.

Inter-Continental Findings

Company Reputation

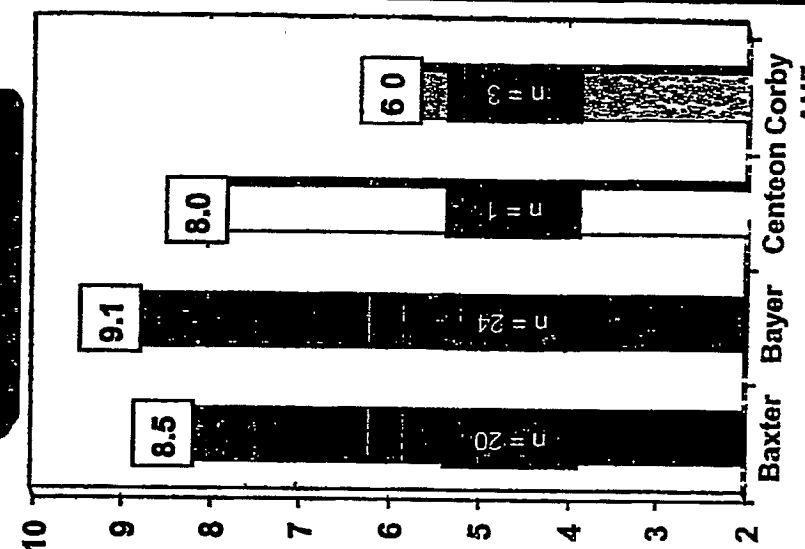
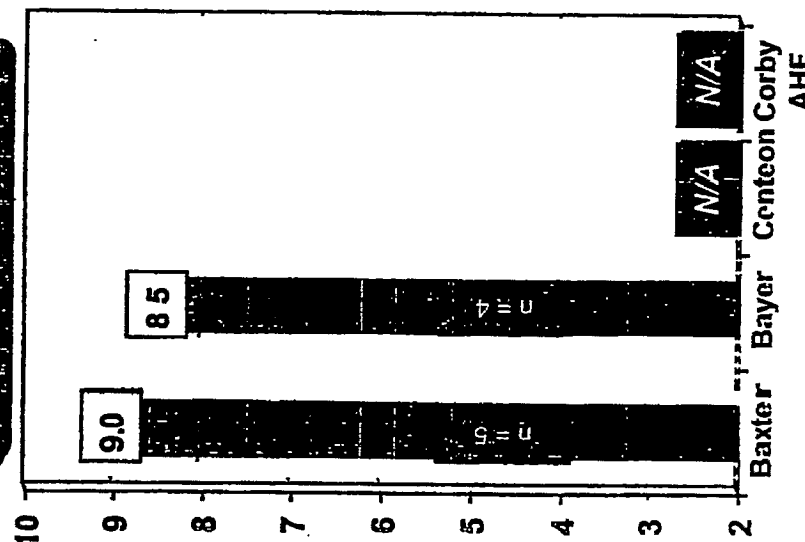
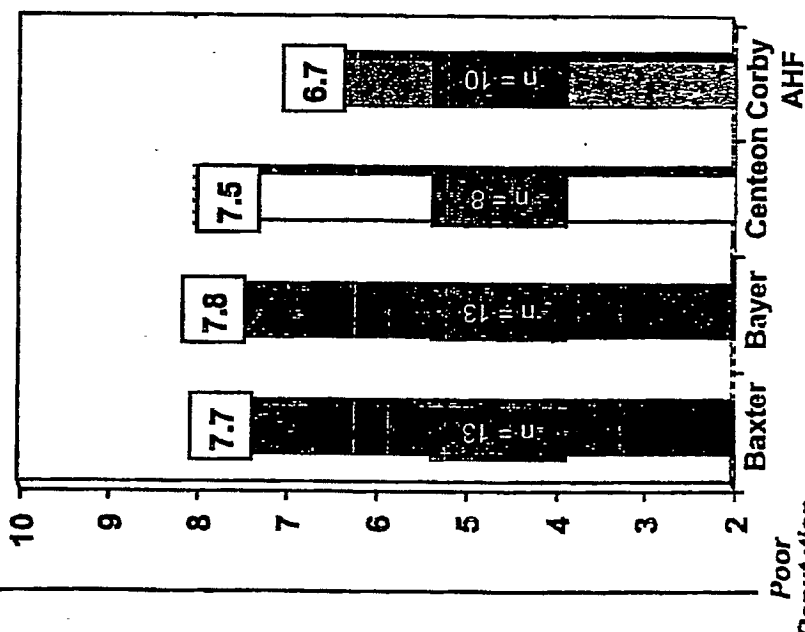
- Prompted -

Good Reputation

Professional Ratings

Recombinate Patient Ratings

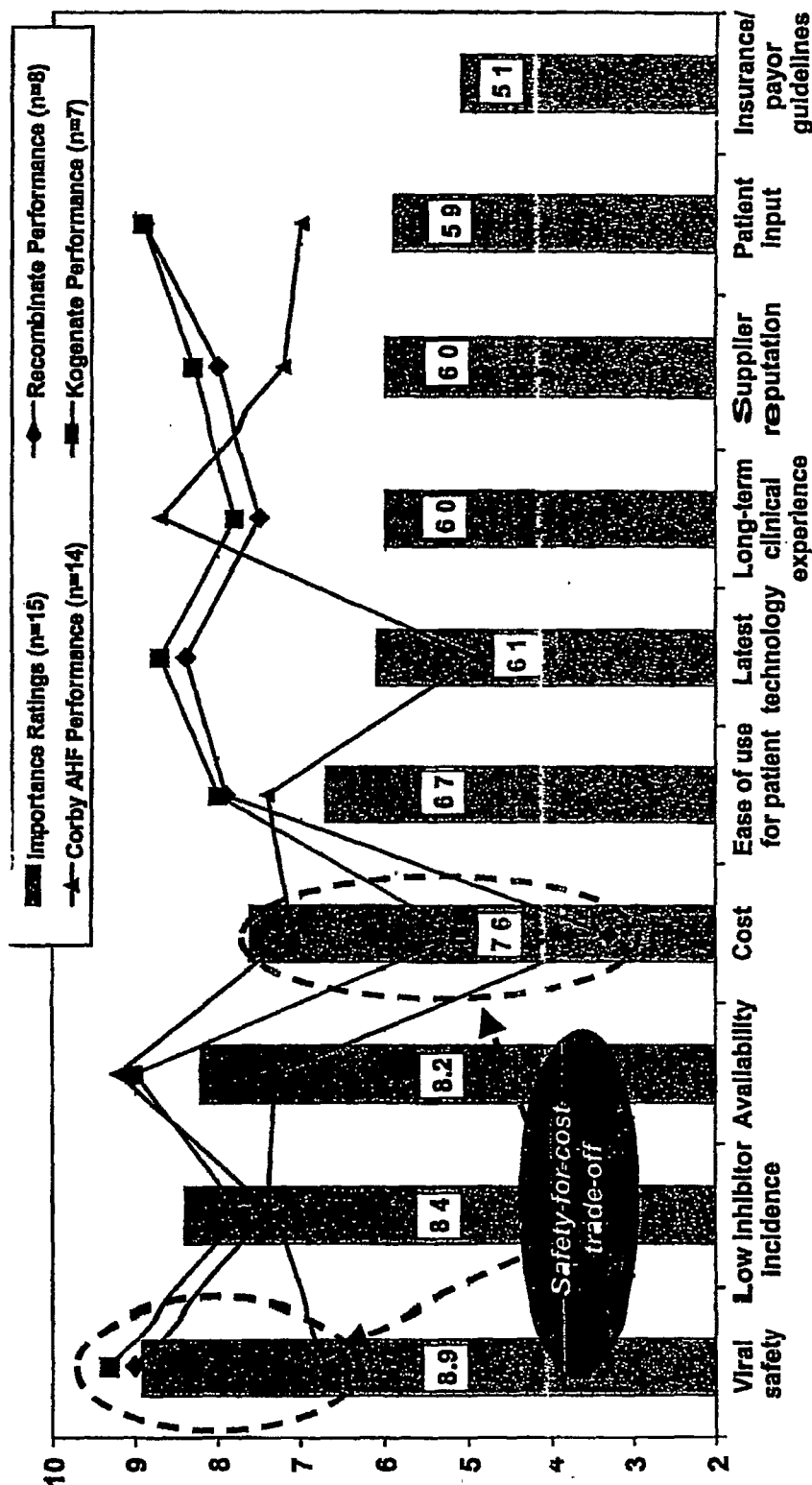
Kogenate Patient Ratings



Corby AHF is used because of its *Low Cost*, but a trade-off with *Viral Safety* is clearly the consequence. Kogenate rates above Recombinate.

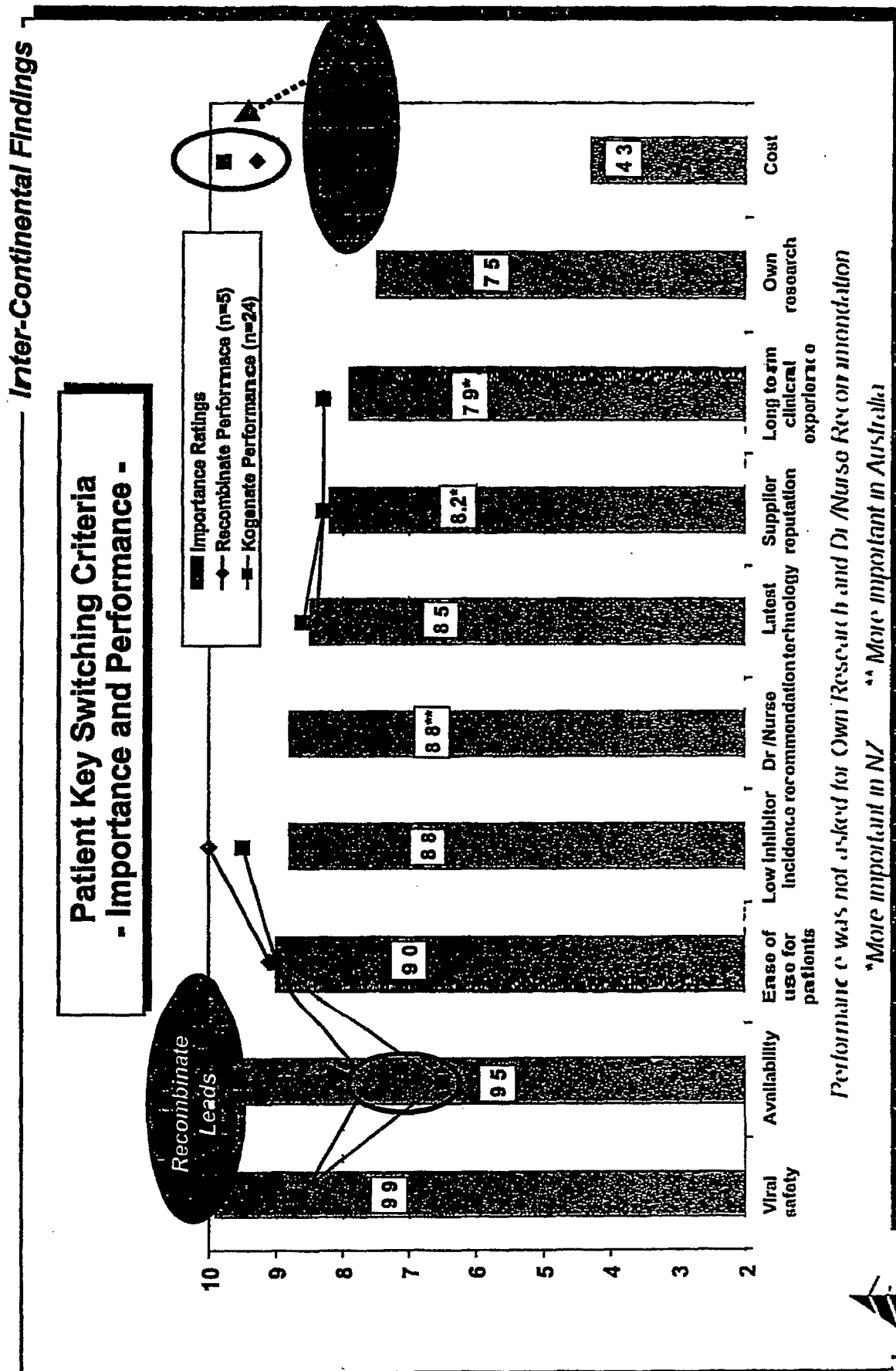
Inter-Continental Findings

Physician Key Switching Criteria - Importance and Performance -



Performance was not asked for on Insurance Guidelines

I.C. patients perceive Recombinate as being more available but of higher cost.

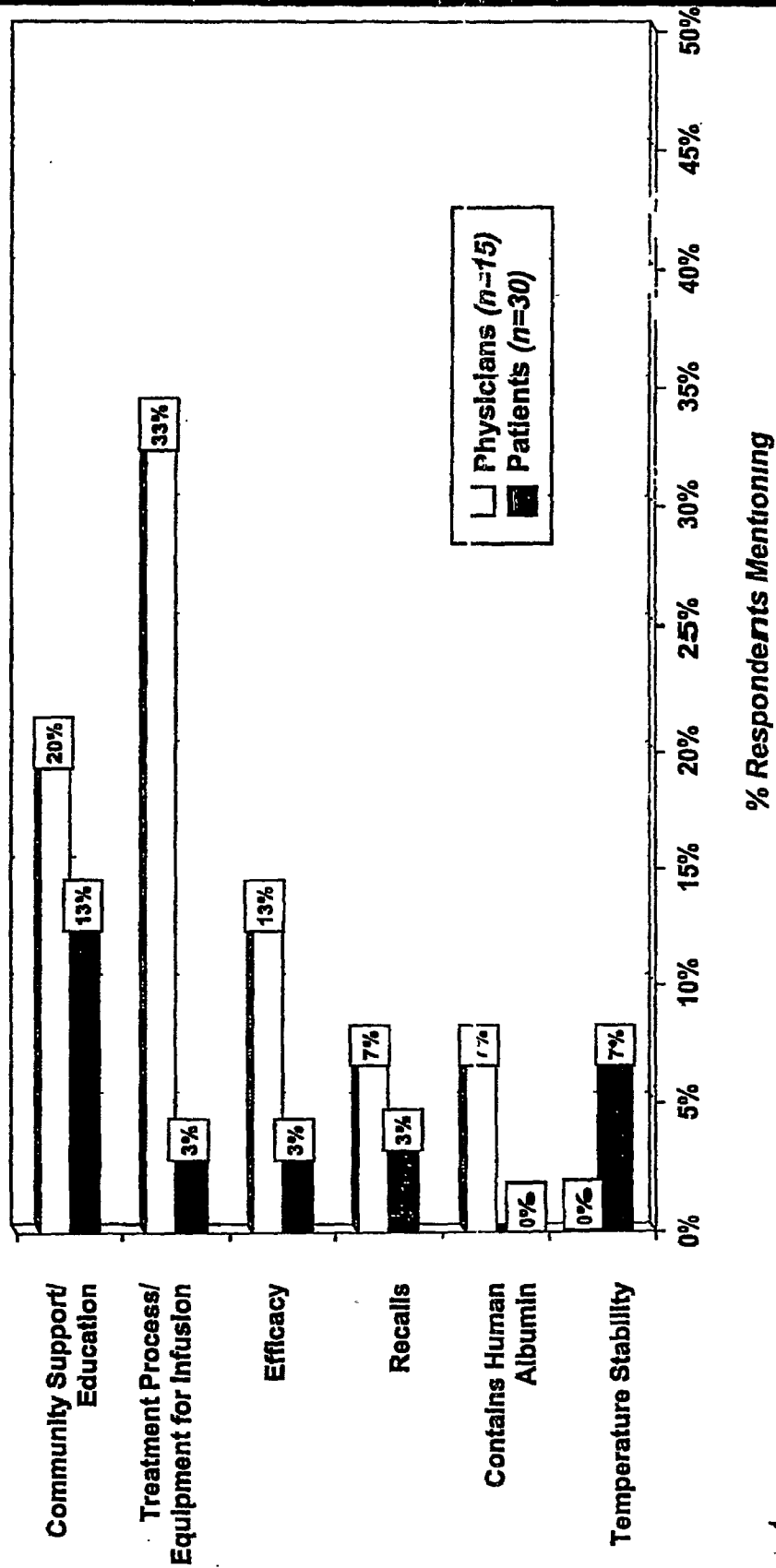


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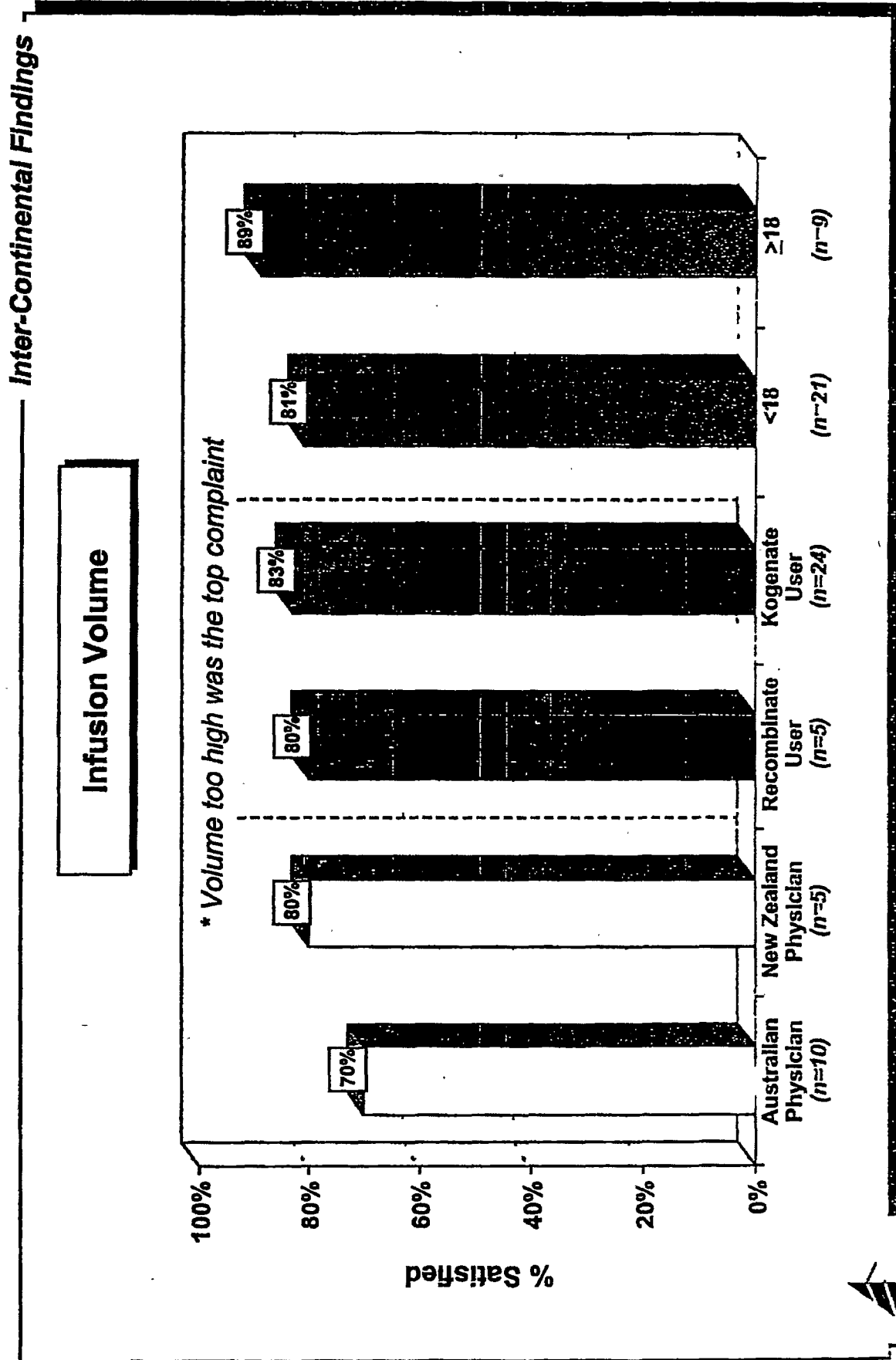
Community support/education was mentioned most often as another criteria considered when selecting a Factor VIII replacement product.

Inter-Continental Findings

Other Selection Criteria
- Not from list provided -



Most I.C. respondents were satisfied with their infusion volumes.

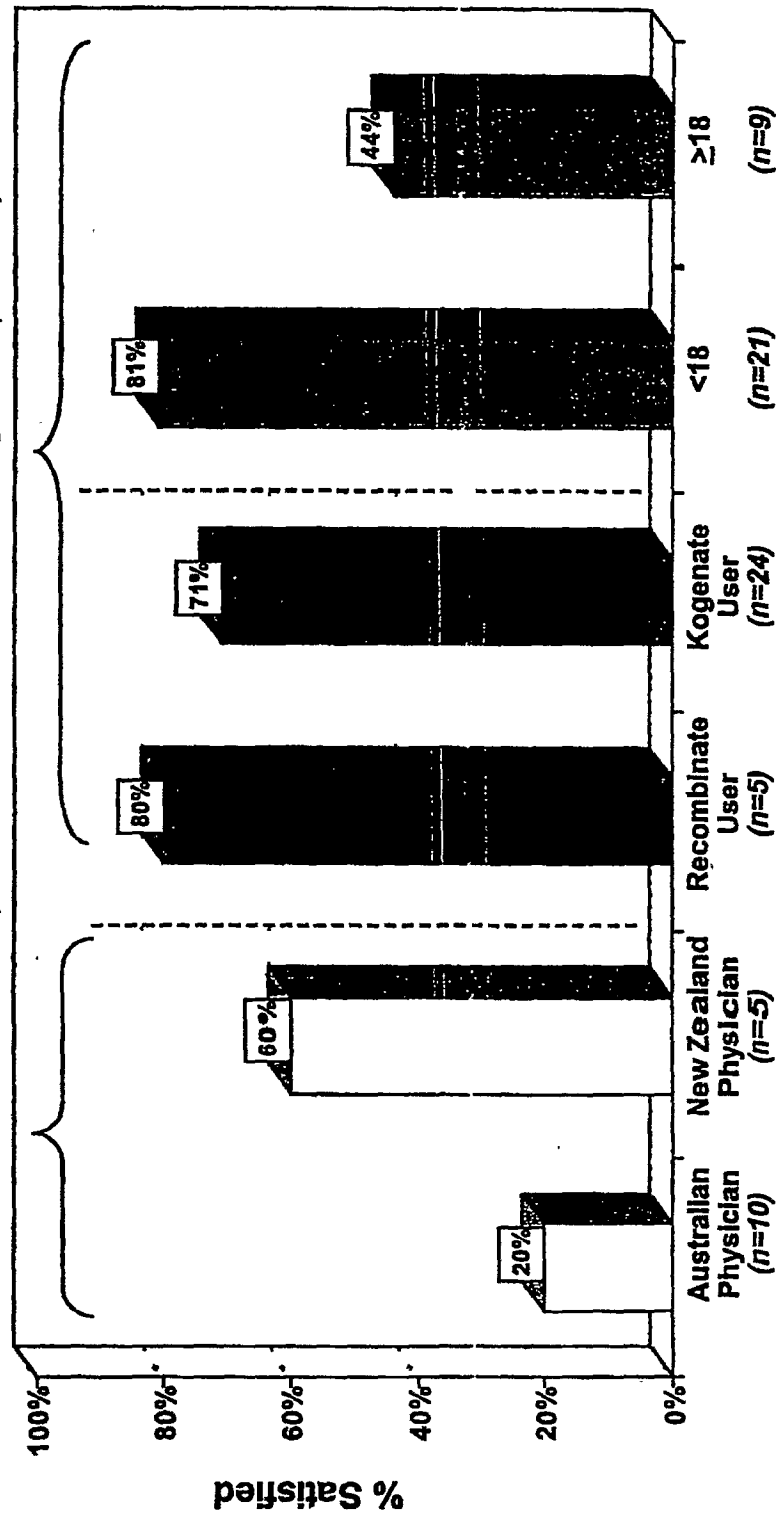


Australian physicians and older patients are particularly dissatisfied with the range of potencies available, citing the need for a greater variety of sizes.

Inter-Continental Findings

Range of Potencies

- Need greater variety - 53%
- Need lower units (50,100,150 IU) - 40%
- Need higher units (>1000 IU) - 13%
- Need greater variety - 27%
- Need higher units (>1000 IU) - 7%



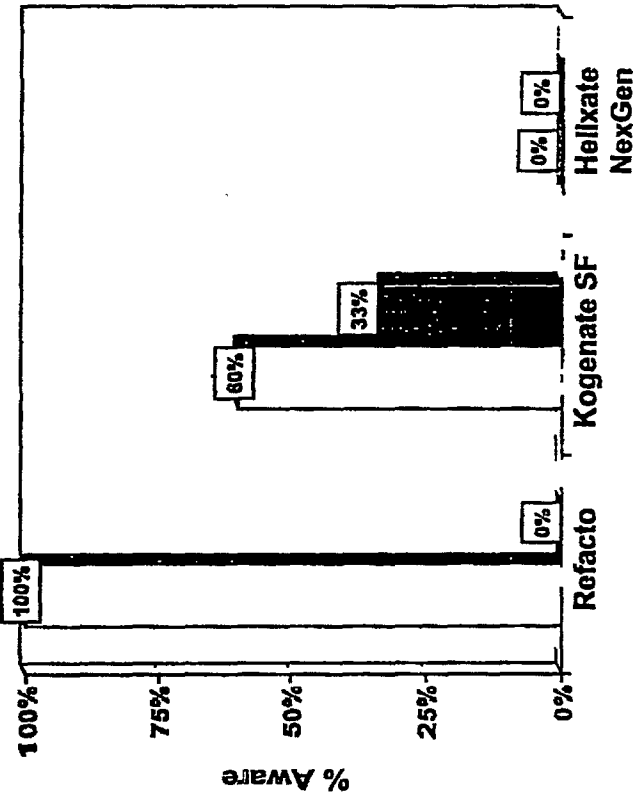
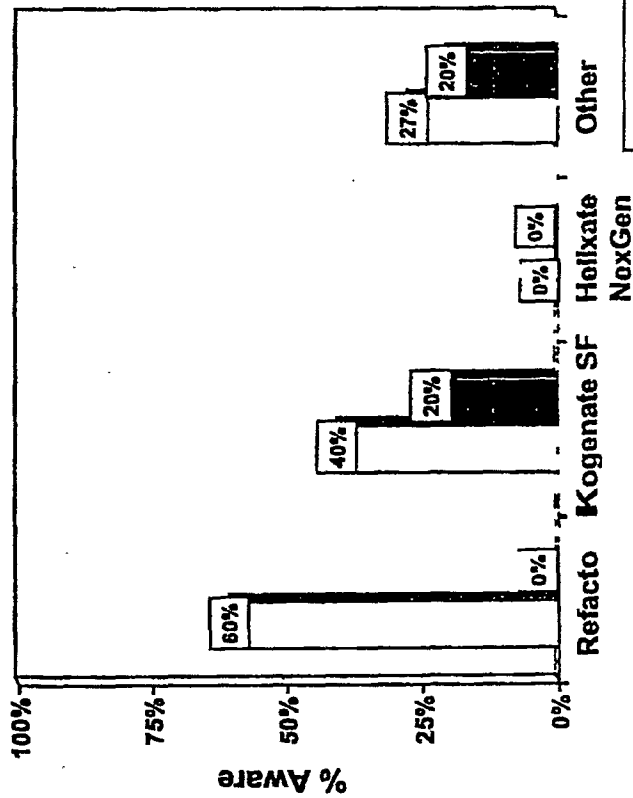
Patient awareness of new products is very low in Australia and New Zealand.

Inter-Continental Findings

New Product Awareness

Unaided

Aided



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Knowledge of new products among physicians is less in Australia and New Zealand than in the U.S. and Europe.

Inter-Continental Findings

Current Knowledge of New Products - I.C. Physicians -

Kogenate SF

- **No answer** 60%
- Albumin free 20%
- Sugar as stabilizer 13%
- In trials/coming out soon 13%
- Less albumin 7%
- Heard of, but nothing specific 7%
- New, better treatment process 7%
- Smaller molecule 7%
- Preferred in Europe 7%

Refacto

- **No answer** 60%
- B-domain deleted 27%
- Albumin free 13%
- Stabilized differently 7%
- Heard of, but nothing specific 7%

Helixate NexGen

- **No answer** 100%

% of respondents mentioning

n = 15



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I.C. patients expressed little or no knowledge of new products.

Inter-Continental Findings

Current Knowledge of New Products

- I.C. Patients -

Kogenate SF

- No answer 70%
- Albumin free 20%
- Smaller volume needed 10%
- On market soon 10%
- Heard of, but nothing specific 5%
- Second generation product 5%
- Preferred in Europe 5%

Refacto

- No answer 100%

Helixate NexGen

- No answer 100%

% of respondents mentioning

n = 30



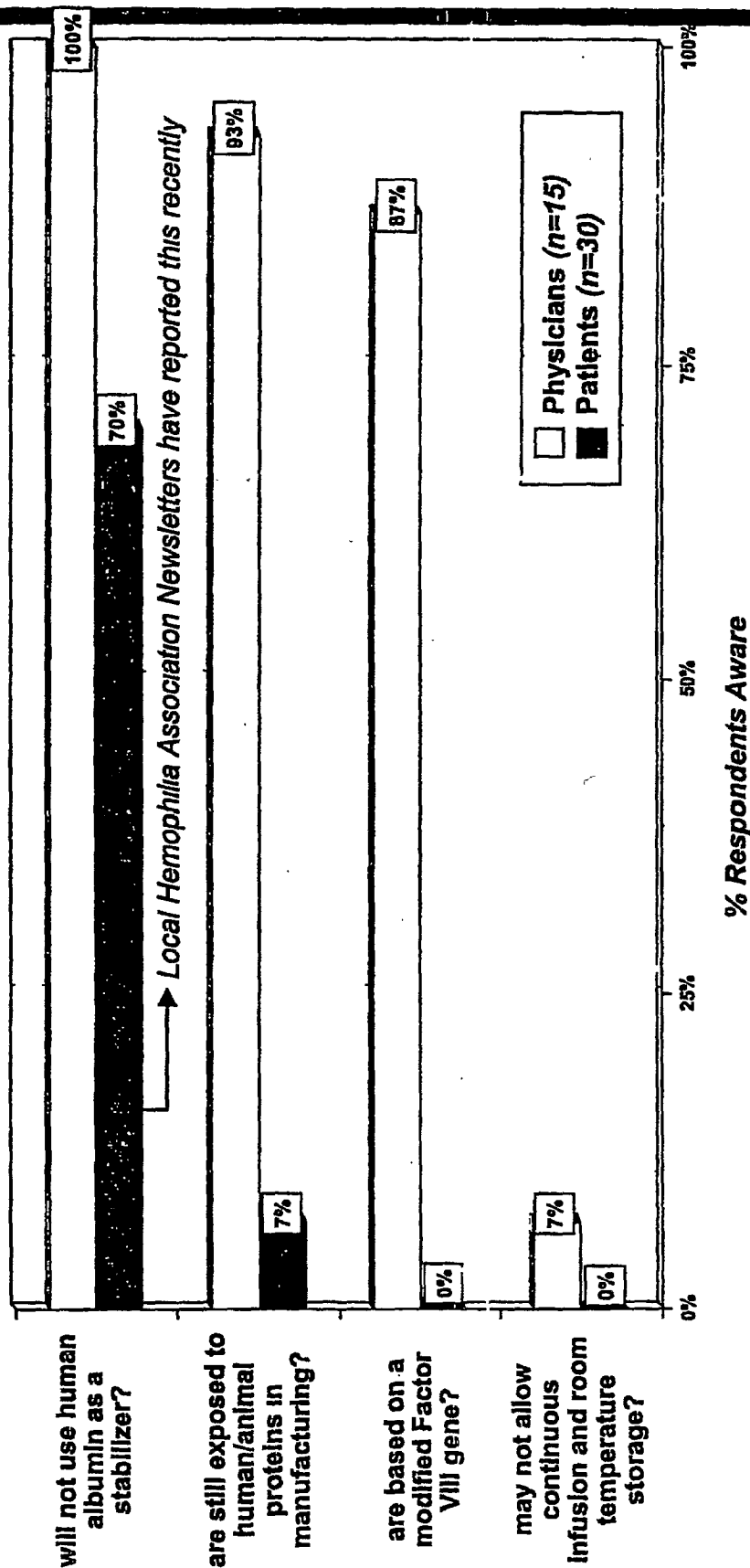
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I.C. patient awareness of new product features is much lower than that of physicians. However, even physicians were not aware of the differing stability profiles.

Inter-Continental Findings

New Product Awareness

Are you aware that certain reformulated recombinant Factor VIII concentrates...



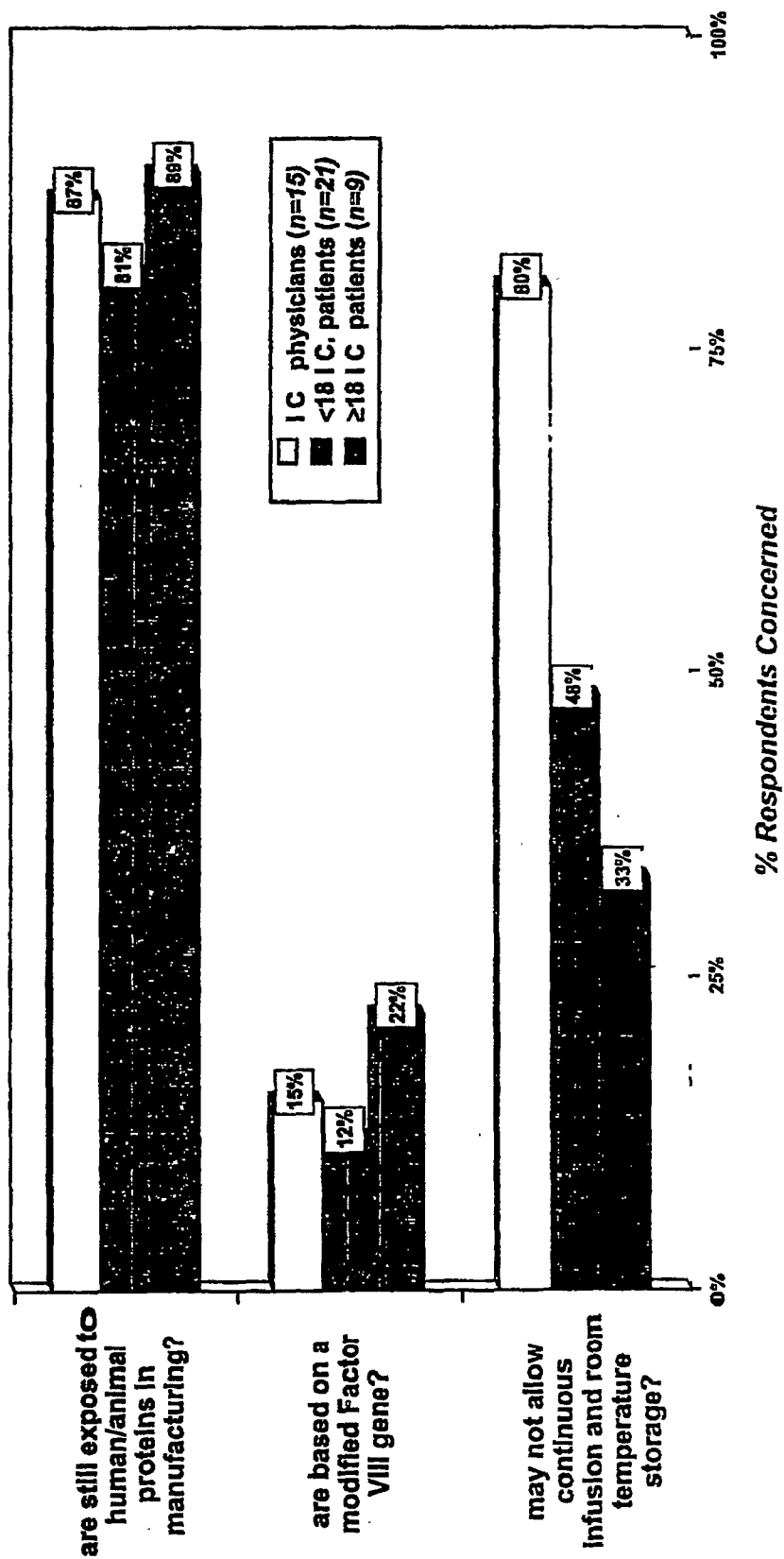
MARFLC

Exposure to human/animal proteins was expressed for the use of a modified gene.

Inter-Continental Findings

New Product Concerns

Is it a concern to you that certain reformulated recombinant Factor VIII concentrates...



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Comments support the data on the previous two pages.

Inter-Continental Findings

New Product Concerns

Comments/Quotes

"Not using albumin as a stabilizer will result in less risk of viral infection This will add to patient's confidence "
- New Zealand Physician

"Having no albumin in the final product will certainly be an improvement."

- New Zealand, <18 Recombinate User

"I still have a small concern with using human and animal proteins in manufacturing because there still would be a chance of viral contamination or CJD."

- Australian Physician

"Exposure during manufacturing is a concern because there is still a risk of infection However, this is no different than the current product "

- Australian, >18 Recombinate User

"Having the B-domain deleted is not really a concern, it's been shown to be effective Hopefully it will reduce inhibitors, but we'll have to wait and see The difference in assay is a concern however "

- Australian Physician

"I have not heard of the B-domain gene This is only a concern if it negatively changes how the product works "

- Australian, >18 Kogenate User

"This is a major concern We need continuous infusion for surgery Patients need room temperature storage so they can travel "

- New Zealand Physician



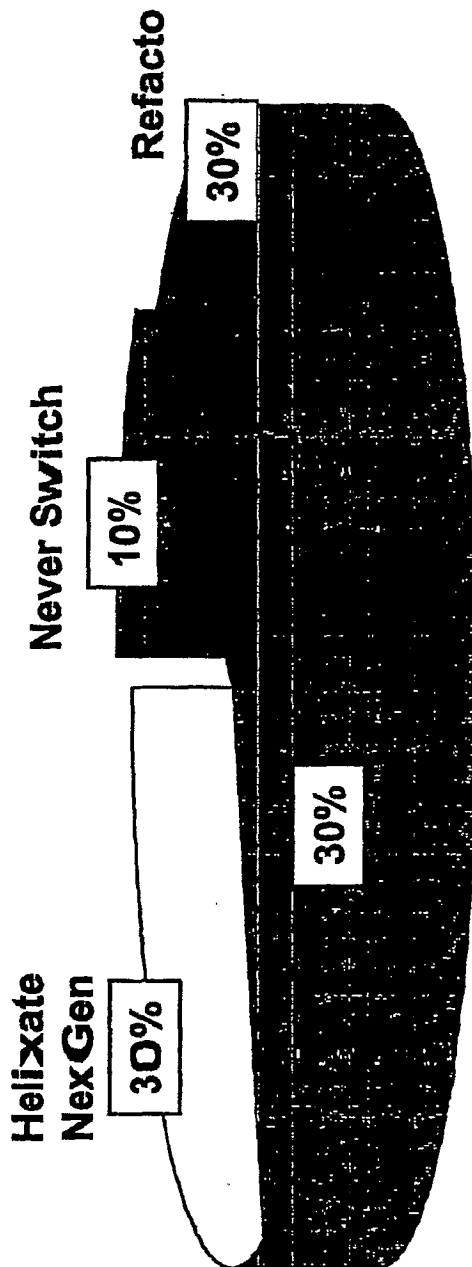
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I.C. physicians expect no new product to be used more than another one. They expect only 10% of their patients never to switch from their current products.

Inter-Continental Findings

What % of Patients Will Switch to Each Product?

- I.C. Physicians -



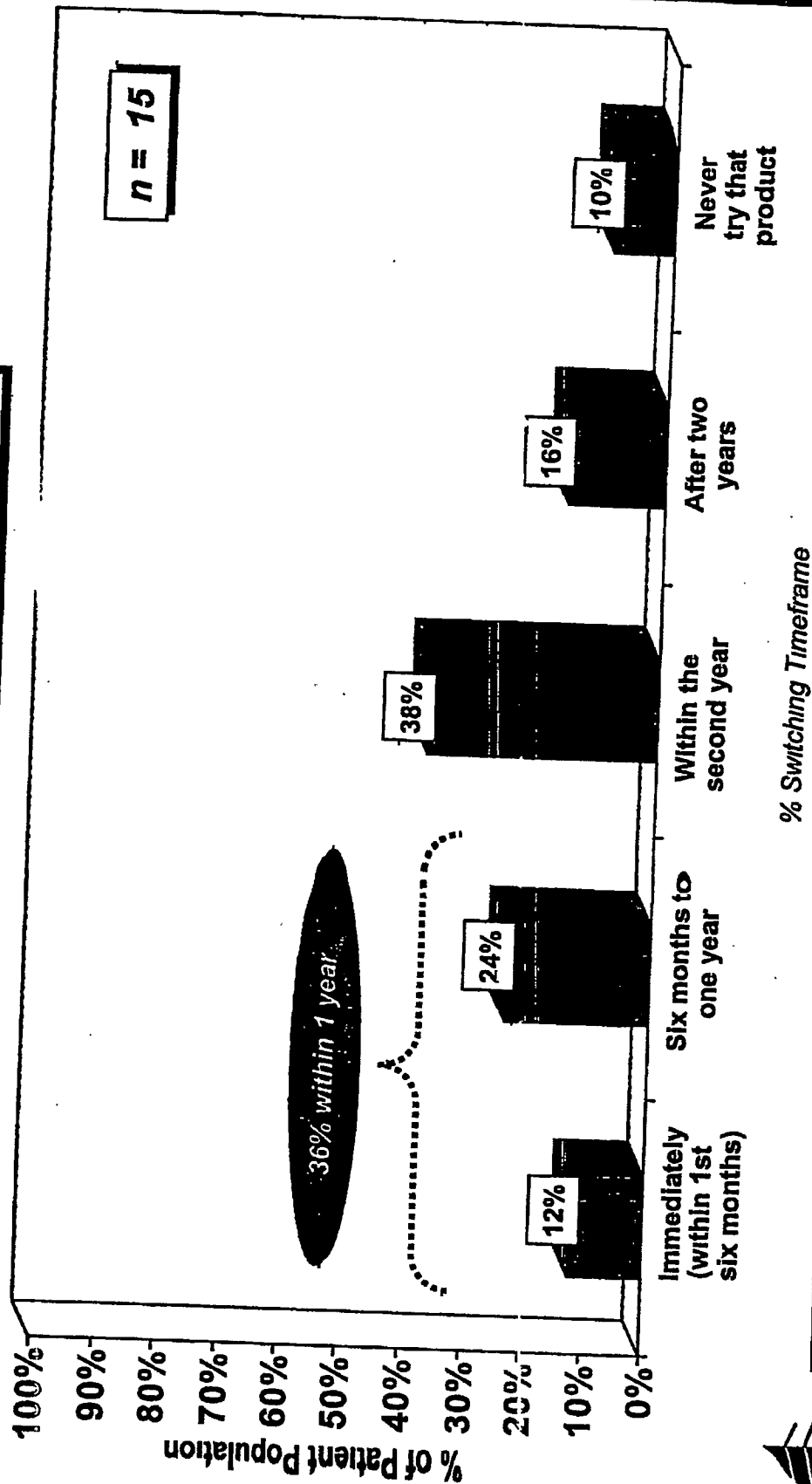
n = 15



I.C. physicians expect the majority of their patients to wait at least one year before they would switch to a reformulated product.

Inter-Continental Findings

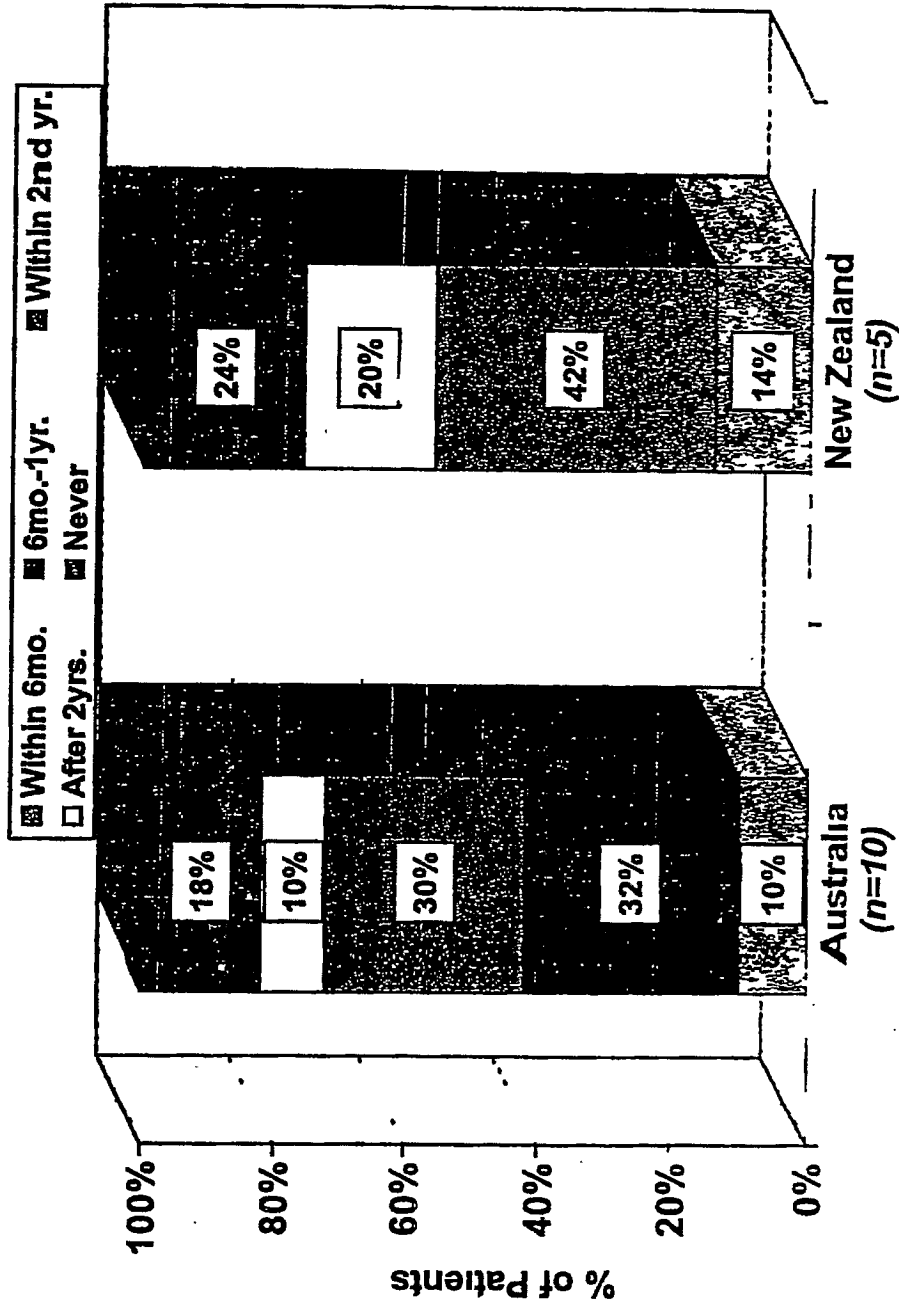
I.C. Physicians Switching Timing to a Reformulated Product



New Zealand physicians are more conservative in their estimates of when their patients will switch to a reformulated product.

Inter-Continental Findings

**Switching Timing by Country
- Physicians -**



Waiting for experience with inhibitors and pricing will determine the speed of acceptance for new products.

Inter-Continental Findings

**Physicians Switching Timing
Explanations**

Comments/Quotes

"Having the human albumin removed is interesting if at the same price I would wait 12 months or so to see how patients react before recommending it to my patients "

- New Zealand Physician

"Not considering cost, all patients would switch soon. But cost is a big factor, government policy will favor the cheapest one "

- Australian Physician

"Because this is only a slight improvement over what is available, my patients would only switch if cost is the same The assay issue may be a problem if you need multiple assays."

- Australian Physician

"I'd need more information on supply, safety and cost effectiveness to make a more informed decision "

- New Zealand Physician

"Once they become available and the government approves the product, I would have to change immediately to give my patients the best possible product."

- Australian Physician



I.C. patients were not familiar enough with the new products to choose which they would prefer.

Inter-Continental Findings

Reformulated Product Most Likely to Try
- I.C. Patients -

Kogenate SF

Refacto

Helixate NexGen

Other

Could not choose without more information

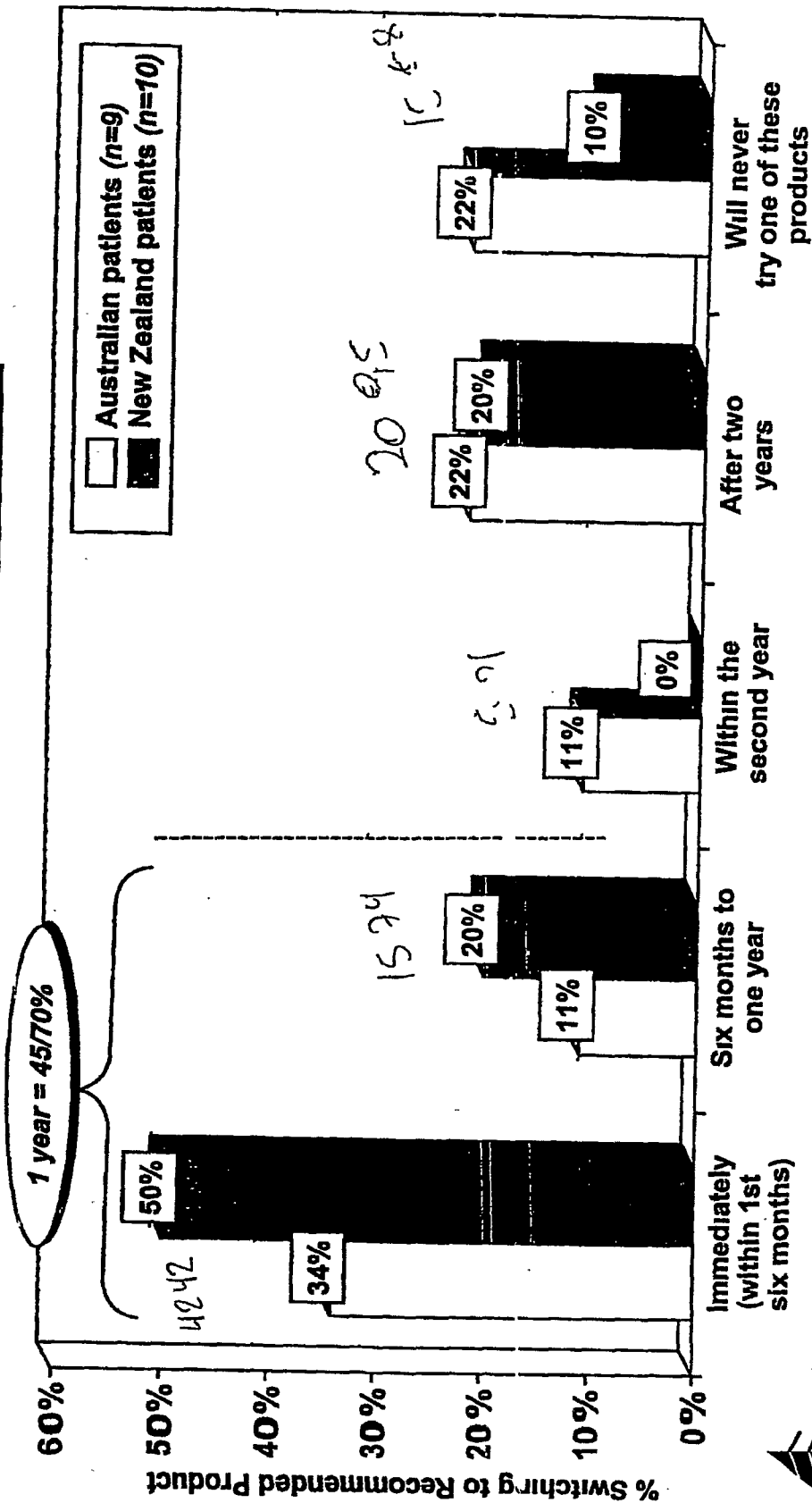


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New Zealand patients appear more likely to try a reformulated product and would feel comfortable trying it within one year. There is no difference between willingness to try one product over another.

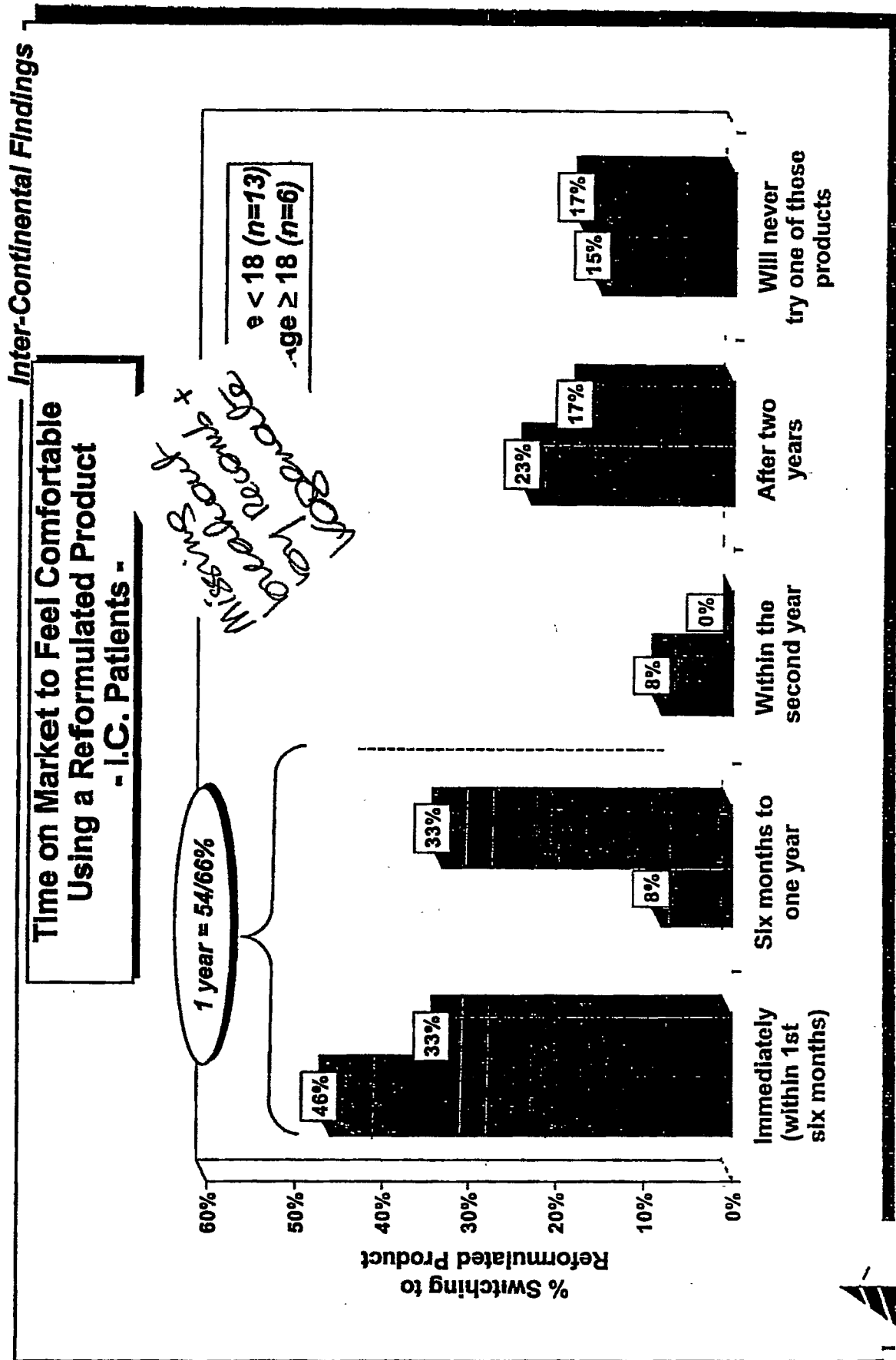
Inter-Continental Findings

Time on Market to Feel Comfortable Using a Reformulated Product - I.C. Patients -



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Nearly half of the <18 patients would feel comfortable trying a reformulated product as soon as it is released.



Patients explain when and why they would feel comfortable trying a new product...

Inter-Continental Findings

Patients Switching Timing Explanations

Comments/Quotes

"If it is Bayer's product, we would feel comfortable using it immediately."

- Australian, <18 Kogenate User

"I don't want to wait too long to switch to a newer, better product. However, I don't want to be the first one to try it either"

- Australian, ≥18 Kogenate User

"We can't afford to wait too long Need to see about inhibitor incidence, but this *should* show in the first six months"

- New Zealand, <18 Kogenate User

"Six months should be enough These products have probably already been used in Europe or the U S"

- New Zealand, ≥18 Kogenate user

"I would not switch to these products, but would wait for a protein free product to be available My current product works fine and too much switching can be a problem"

- Australian, ≥18 Recombinate User



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If costs were similar, Australian physicians believe their patients would likely switch both times. New Zealand physicians believe most of their patients will wait for the protein free product.

Inter-Continental Findings

Switching Scenarios

- I.C. Physicians -

☐ Australian physicians (n=9)
☒ New Zealand physicians (n=5)



Comments/Quotes

"If price were equal, I'd select the best product available"
- Australian Physician

"I'd wait for the protein free product to come available and minimize switching"
- New Zealand Physician

"The consumer group has influence and it's difficult to guess what they will push for"
- New Zealand Physician

"Some people have developed a fondness for a certain product and may never switch"
- Australian Physician

"It will depend on cost and availability"
- Australian Physician

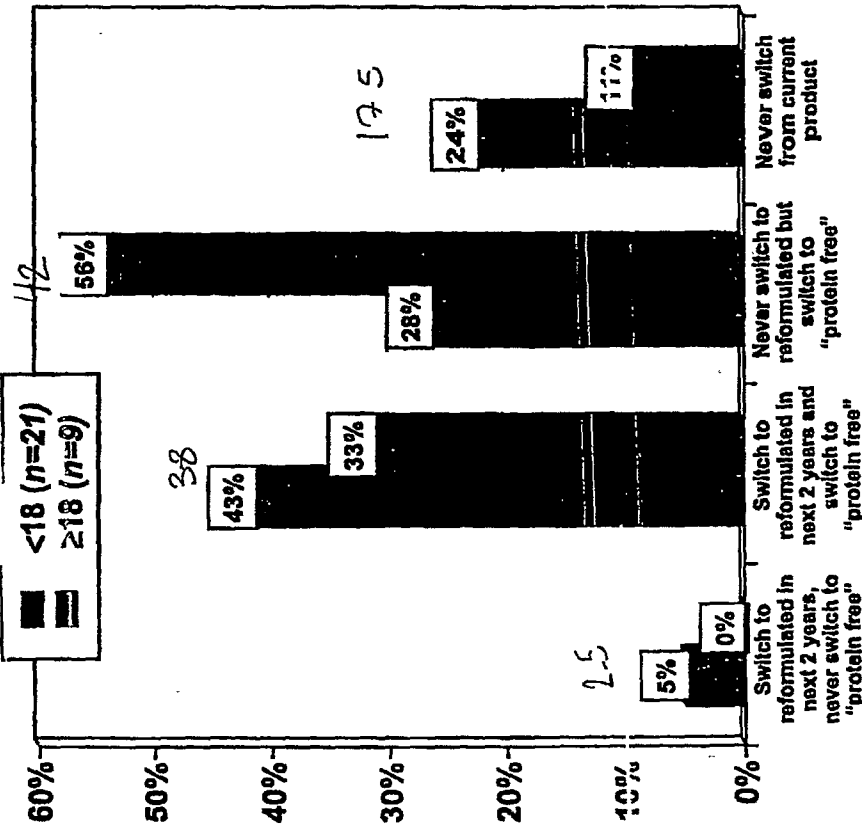
"The government would have to change their guidelines and allow patients >18 to use roxobutants"
- Australian Physician

MARTIN

Younger I.C. patients are more likely to switch two times. Most older ones prefer to wait for the protein free product.

Inter-Continental Findings

Switching Scenarios - I.C. Patients -



Comments/Quotes

"We will keep changing to the safest product available at the time"

- New Zealand, <18 Recombinate User

"If it is a better product I would change each time. Two years is too long to wait"

- Australian, ≥18 Recombinate User

"Current product is ok, so I would wait for the best and safest product before switching"

- Australian, ≥18 Recombinate User

"Protein free sounds very good and I don't want to make many changes so I'll wait for that"

- New Zealand, ≥18 Kogenate User

"We are happy with Kogenate. The benefits are not worth the risks of switching products"

- Australian, <18 Kogenate User



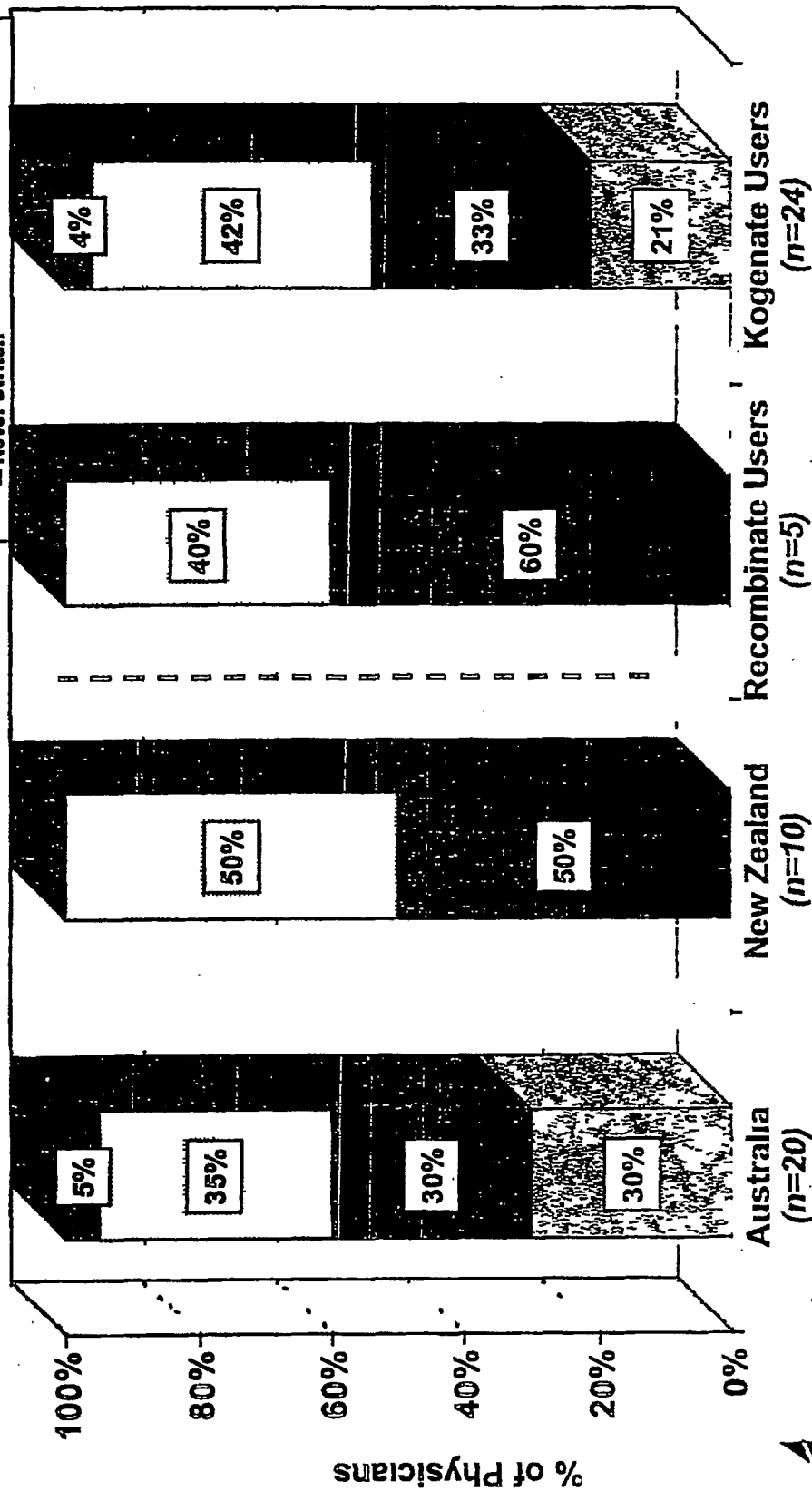
The Recombinate users in this sample are most likely to wait for a protein free product before switching.

Inter-Continental Findings

Switching Scenarios

- I.C. Patients by Country & Product Type -

- Switch to reform, but not to protein free
- Switch to reform and to protein free
- Not switch to reform, but to protein free
- Never switch



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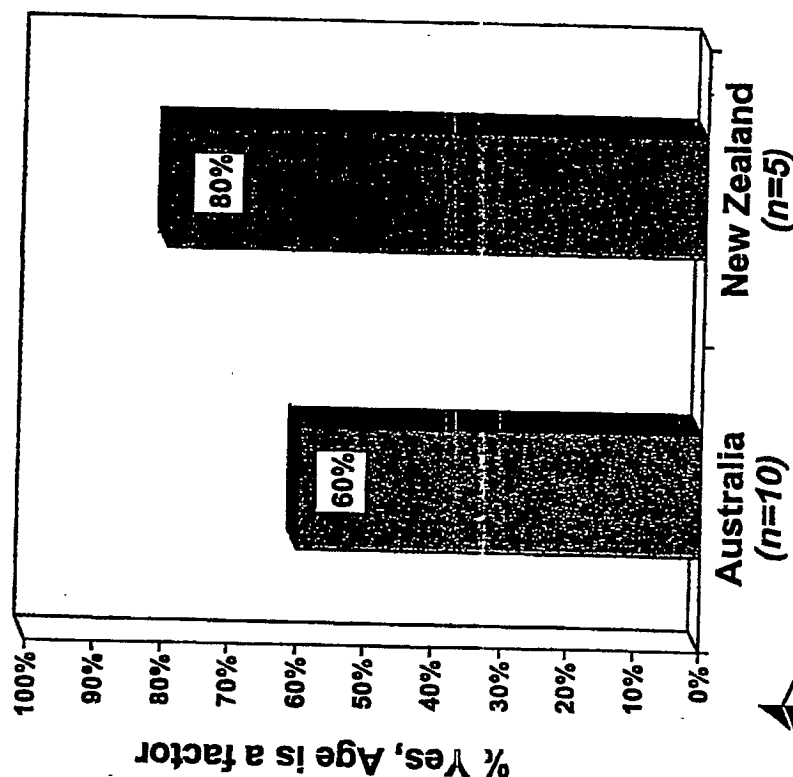
Younger patients are more likely to be eligible for government funding for the reformulated products.

Inter-Continental Findings

Is Patient's Age a Factor in Deciding to Switch Products?

I.C. Physicians

Comments/Quotes



"Younger patients will be given preference for the newer products "
- Australian Physician

"Per government policy, most adults are ineligible for recombinant products Same should hold for the new products "
- Australian Physician

"Younger patients and those without viruses will get the preference "
- Australian Physician

"Government funding will favor the younger patients first for improved products "
- New Zealand Physician

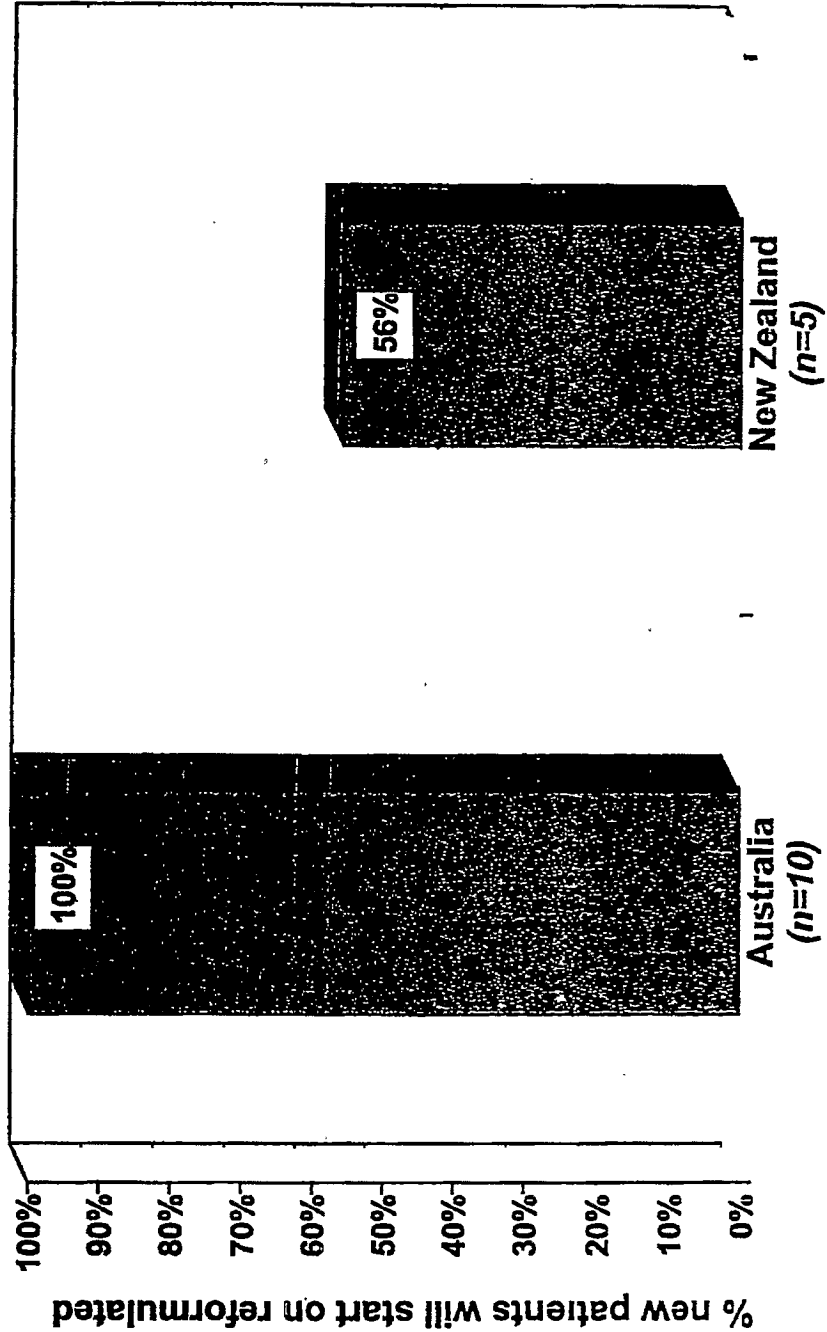
"I need more information about the product, because safety, cost and effectiveness are the most important factors "
- New Zealand Physician



Australian physicians are more likely to immediately start their PUPs on the reformulated products once they are available.

Inter-Continental Findings

% Newly Diagnosed on Reformulated



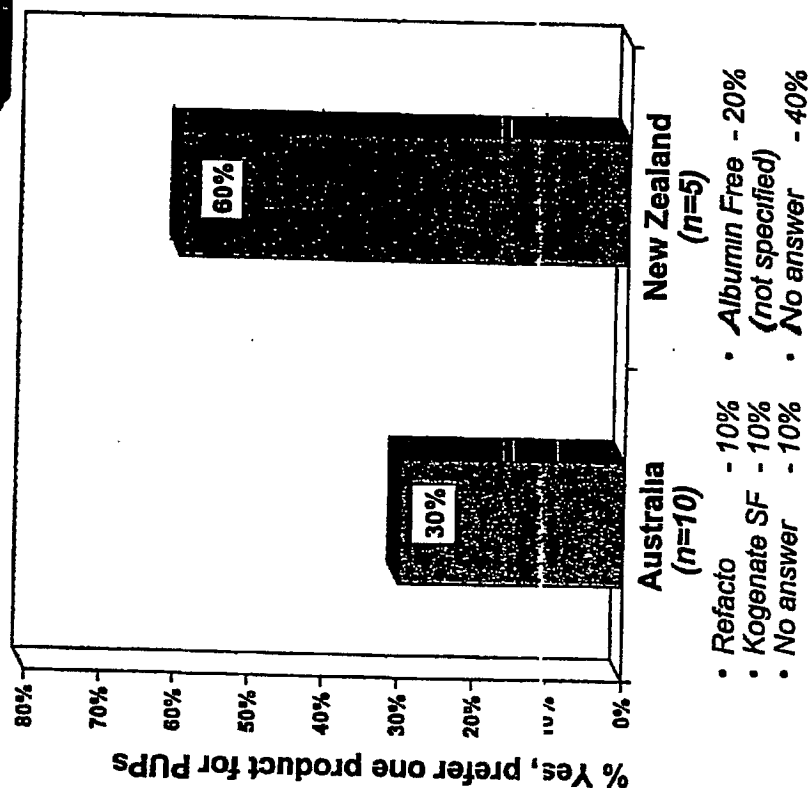
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While New Zealand physicians said one product would likely be preferred for PUPS they could not say which one with out further information.

Inter-Continental Findings

Will One Reformulated Products be Preferred for PUPS?

I.C. Physicians



Comments/Quotes

"First I'd need to know more about inhibitors Also, I'd prefer the brand with human rather than animal protein " - New Zealand Physician

"I'd use the one with the least human albumin However, I need more information on prions first " - New Zealand Physician

"The B-domain deleted is supposed to be better " - Australian Physician

"There may be a preference for Kogenate SF because of the assay issue " - Australian Physician

"It's not my decision, I have to use what the government decides to use for patients " - Australian Physician

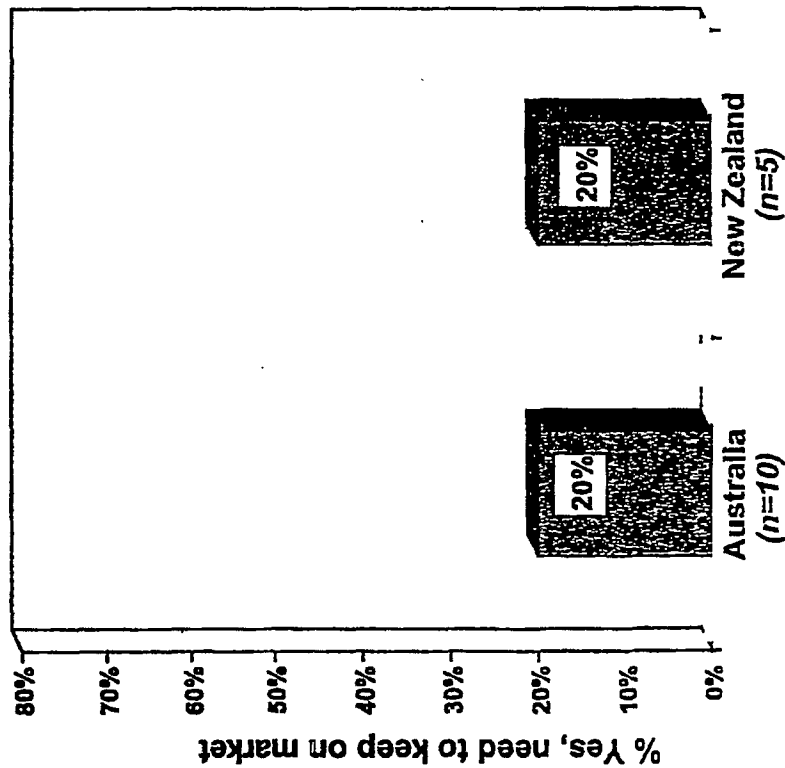


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Most I.C. physicians do not see the need to keep previous generation products on the market.

Inter-Continental Findings

Need to Keep Previous Generation Products on Market?
- I.C. Physicians by Country -



Comments/Quotes

"If new one is cheaper and available, then there is no need to keep the first product"

- Australian Physician

"Once data on inhibitors and efficacy is good then we can get rid of the old one as long as it's available"

- Australian Physician

"There should be some overlap period, but not indefinitely"

- New Zealand Physician

"Only need to keep the old ones if supply or stability are issues"

- Australian Physician

"If the new product costs more, then we need to keep the old one available"

- New Zealand Physician

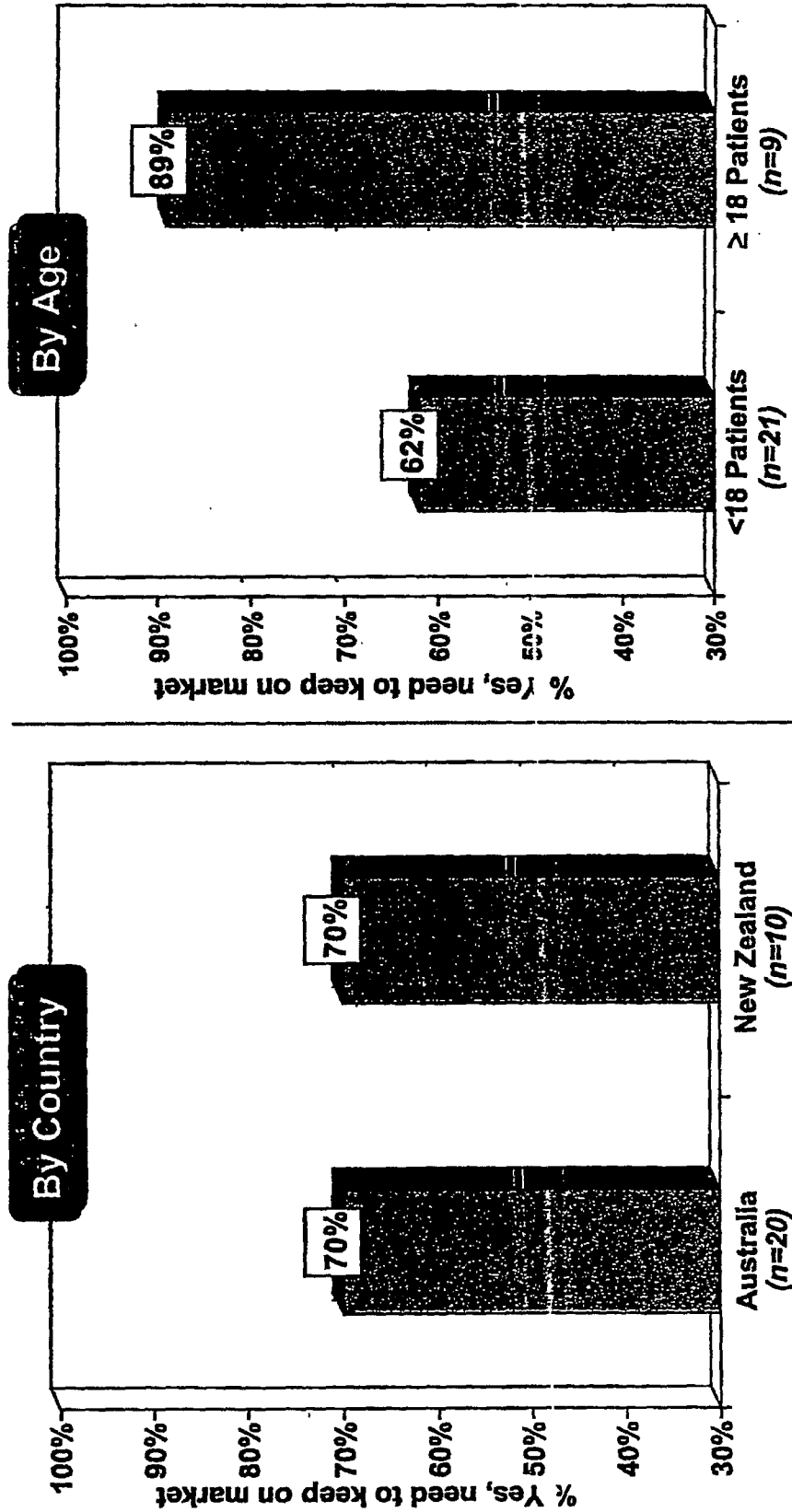
MARK II

Younger I.C. patients see less of a need to keep previous generation products around.

Inter-Continental Findings

Need to Keep Previous Generation Products on Market?

- I.C. Patients by Country and by Age -



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Shortage of supply, risk of inhibitors and lower costs were the reasons given for keeping a previous generation product on the market.

Inter-Continental Findings

Need to Keep Previous Generation Products on Market?

Comments

Comments/Quotes

"If the product is new and improved, why keep a less safe one around?"

- Australian, <18 Kogenate User

"If the new generation product is really better, I don't see a need to keep the old one available "

- New Zealand, <18 Recombinate User

"We are always short on supply, so the old one would be needed as a back-up"

- Australian, ≥18 Kogenate User

"It's better to keep the old product available It will be cheaper and cost is a concern But children should always get the safest product "

- New Zealand, <18 Kogenate User

"You would want to keep an option available in case patients develop inhibitors "

New Zealand, 18 Kogenate User

Continuous infusion is very important for physicians, while room temperature storage is nice to have for patients. The lack of both will limit a new products' penetration.

Inter-Continental Findings

Convenience Features with New Products

IC Physicians (n=14)

Comments/Quotes

"We need a product that allows for continuous infusion
The room temperature storage is not as important"

- New Zealand Physician

"There is a limit to what is acceptable No problem to keep
product in the fridge, but we need to be able to infuse for
8 to 12 hours for surgery"

- Australian Physician

"Without these features you would have to keep the old
products around In fact, it may be better not switch at
all"

- Australian Physician

"These are secondary concerns compared to safety I
would use the new product if safety were superior"

- Australian Physician

Yes, lower opinion of new product

- Need continuous infusion **86%**
- Need room temperature storage 36%
- Need both features 0%

Still prefer new product, without the features **14%**

IC Patients (n=23)

Comments/Quotes

"I need room temperature storage for long trips or power
outages"

- Australian, <18 Recombinate user

"You would have to keep the old product around for
continuous infusion for major bleeds and surgeries"

- Australian, ≥18 Recombinate User

"Room temperature storage is neither here nor there"
However, continuous infusion is important to have"

- New Zealand, <18 Kogenate User

"We already store our Kogenate in the refrigerator So, I'd
still want the safer product"

- Australian, <18 Kogenate user

Yes, lower opinion of new product

- Need continuous infusion **65%**
- Need room temperature storage 17%
- Need both features 26%

Still prefer new product, without the features **35%**

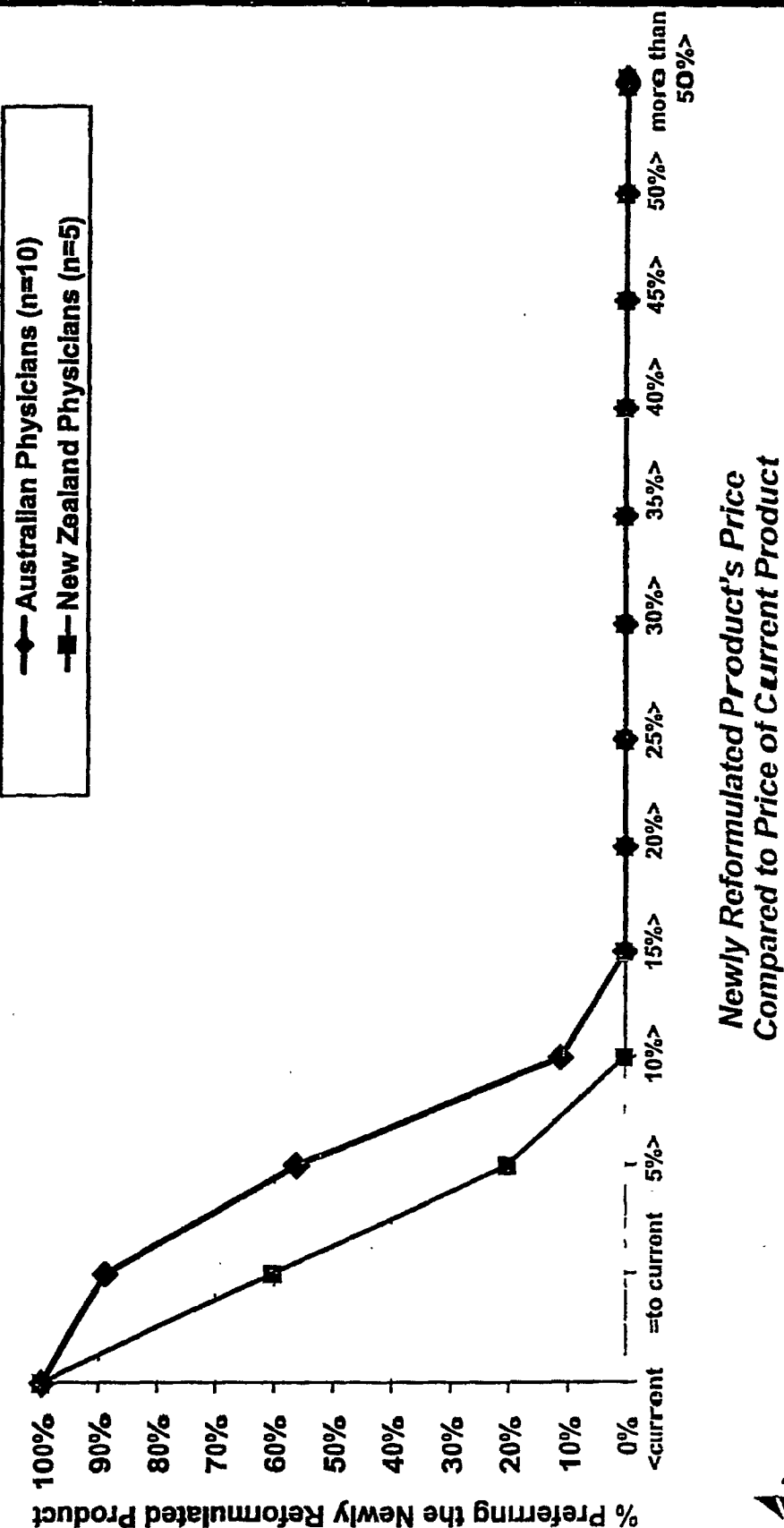


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I.C. physicians are very price sensitive, exhibiting some tolerance for a 5% price premium, but virtually no tolerance for a 10% increase.

Inter-Continental Findings

**Pricing Sensitivity
- I.C. Physicians -**



Tight budgets and minimal product improvements limit the potential for a price premium.

Inter-Continental Findings

Pricing Sensitivity Comments
- I.C. Physicians -

"The advantage of the new products are minimal, not worth a price increase."

- Australian Physician

"We have a set budget to work with, a 10% premium would be too much "

- Australian Physician

"If the new product does not demonstrate a significant advantage, then the status quo is better."

- New Zealand Physician

"I don't believe a higher priced product would be supported Besides, it is not just an issue of a better product or price, but also support from the manufacturer "

- New Zealand Physician

"The manufacturer would have to prove a 5% price increase equates into a 5% better product."

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Agenda

Objectives and
Methodology

Inter-Continental Findings

Inter-Continental Conclusions and
Recommendations



MARIC

Recombinant use is low in Australia and New Zealand. Patient awareness of new products is also low compared to the U.S. and Europe.

Conclusions

Key Inter-Continental Finding - Australia & New Zealand -

- | | |
|---|--|
| <ul style="list-style-type: none"> • Only 32% of patients currently use recombinant products • Government policy dictates only patients <16 receive reimbursement for recombinant products • However, patient groups can influence the governing agencies' decisions • <i>The physician</i> is the top switching influencer for ≥18 patients, versus <i>own research</i> for <18 patients • Unprompted concern of CJD was high at 20% • <i>Desire for educational information</i> was the top unmet need • Low satisfaction was mentioned for <i>range of potencies</i> • Awareness of Refacto was high among physicians, but non-existent among patients • Physicians awareness of each product issue, except <i>differing stability profile</i>, was high • Patient awareness of each product issue was low | <ul style="list-style-type: none"> • Physicians and patients express a high concern for <i>exposure to proteins in manufacturing</i> • <i>Inability for continuous infusion</i> was physicians' greater concern while patients were more concerned over <i>no room temperature storage</i> • Physicians expect switching timing to be slow, with only 29% switching within 1 year • Australian physicians expect 87% of their patients to switch twice, while NZ physicians expect 60% to wait for a "protein free" product • Older patients and Recombinate users are more likely to wait for a "protein free" product than switch twice • Australian physicians expect 100% of their PUPs on <i>recombinant</i> products, versus NZ physicians expecting only 56% of PUPs • IC physicians are very price sensitive, with only 20% of NZ and 55% of Australian willing to pay a 5% premium • Kogenate SF will provide the greatest threat to Baxter due to Kogenate's strong position in this market and likelihood to be the first new product to market |
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I.C. Recommendations

Recommendations

A number of measures can be adopted to slow switching in Australia and New Zealand.

- 1 *Don't educate patients about reformulated products...* patients' current awareness of new product is very low, do not take measures that may improve that
- 2 *Promote Recombinate's safety record...* physicians and patients are satisfied with their current products and are very reluctant to try something new, work to reinforce these beliefs by promoting the long history of Recombinate's safety record. Indicate that there has been no exposure to CJD or other unknown viruses, this may help weaken Kogenate's position in the market once its recent CJD problems are publicized
- 3 *Differentiate...* via patient education and convenience features (5 ml infusion volumes, a greater selection of potencies, smaller packaging and improved reconstitution/syringe system)
- 4 *Feed the market information...* both patients and physicians desire more information about current products. Work with physicians (and Hemophilia societies) to develop literature to meet their specific needs and literature that they approve of and can share with their patients
- 5 *Work with patient groups.* to slow government approval for reimbursement for new products. The governments are very price sensitive, opportunities may exist to use price to block the new products or open the door for reimbursement for Recombinate in patients older than 16 (the current cut off point)

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I.C. Recommendations (continued)

Recommendations

- 6 **Get the word out...** publicize to physicians and patients that Baxter is developing a "protein free" product and educate everyone on Baxter's new product as early as possible
- 7 **Defensive marketing efforts...**
 - educate about the use of human/animal proteins during manufacturing, refuting (or weakening) the claims that new products will be "albumin free"
 - educate about the use of a modified gene in new products
 - educate about Kogenate SF's potential inability for continuous infusion (physician focus) and room temperature storage (patient and nurse focus)
 - raise questions with physicians about the risks of taking patients off of a single product versus the unsubstantiated reward of an incrementally safer product
 - if share is slipping rapidly, price Recombinate 10% lower than the reformulated products
- 8 **First to market with protein free...** the first company to market with a totally human/animal protein free product should be able to capture a very large percentage of switching patients in a one year time frame, capitalizing on a "first comer" advantage



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Appendix

- I.C. Physician Respondent List -



MAKING

1999 Baxter Global Hemophilia Study I.C. Physician Respondent List

Appendix

Australia	Ben Saxon, MD	Physician	Adelaide-Women's & Children	Adelaide
Australia	Bill McWhirter, MD	Physician	Royal children's Hospital	Brisbane
Australia	Boyd Webster, MD	Physician	New Children's Hospital	NSW
Australia	David Jupe, MD	Physician	Royal Hobart Hospital	Hobart
Australia	Henry Ekert, MD	Physician	Royal Children's Hospital	Melbourne
Australia	Jamie Price, MD	Physician	Princess Margaret Hospital	Subiaco Perth
Australia	John Lloyd, MD	Physician	Royal Adelaide	Adelaide
Australia	John Rowell, MD	Physician	Royal Brisbane	Brisbane
Australia	Michael Seldon, MD	Physician	New Castle Mater Misericordia	Waratar N S W
Australia	Ross Baker, MD	Physician	Royal Perth	Perth
New Zealand	David Heaton, MD	Physician	Christ Church Hospital	Christ Church
New Zealand	Elizabeth Berry, MD	Physician	Auckland Hospital	Auckland
New Zealand	Louchie Teague	Physician	Starship Children's Hospital	Auckland
New Zealand	Paul Harper, MD	Physician	Palmerston North	Palmerston North
New Zealand	Paul Ockleford, MD	Physician	Auckland Hospital	Auckland



2nd Gen. Re VIII

European Findings

Final Report

**2nd Generation Recombinant Factor VIII
Product Introduction Assessment**

European Findings

Baxter Healthcare Corporation

January 17, 2000

MARTEC

GH001016

Agenda

Objectives and
Methodology

European Findings

European Conclusions and
Recommendations



MARTIC

GH001017

The primary goal of this project is to provide Baxter with global market intelligence allowing it to successfully position its recombinant Factor VIII product against competitive next-generation products.

Objectives

The primary objectives of this project are:

- Determine the motivators and drivers of switching behavior What will cause and prevent switching from Recombinate to a competitive product?
- Understand the perceptions of decision makers on the next generation recombinant products (Kogenate SF, Refacto and Helixate NexGen) coming to market and how this differs from the previous findings

Specific project objectives include:

- Estimate likelihood of switching from Recombinate to new recombinant products
- Compare findings to those of the initial 1998 study, where applicable

This report represents the views of this sample and is just one piece of a strategic marketing plan. Baxter must balance this data with its corporate directives and other internal, competitive and legislative intelligence.



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This project was conducted globally and consisted of two distinct phases.

Methodology

Global Scope

The project was conducted concurrently in the following four global regions:

<u>North America</u>	<u>Europe</u>	<u>Asia</u>	<u>Inter-Continental</u>
<ul style="list-style-type: none"> • United States • Canada 	<ul style="list-style-type: none"> • Germany • France • Italy • Spain • United Kingdom • Denmark • Sweden 	<ul style="list-style-type: none"> • Japan 	<ul style="list-style-type: none"> • Australia • New Zealand

This was a blind study, at no time was Baxter mentioned as the sponsor.

Phase I

Phase I was a focused qualitative phase. Information was gathered via in-depth one-on-one and telephone interviews. This information provided the foundation for the quantitative phase of the research effort.

Phase II

This phase was a quantitative effort, with information gathered via telephone interviews. The output of this phase is a detailed understanding of the project objectives. This information will allow Baxter to develop strategies that maximize its market positioning.



MAR 11 '00

A total of 479 interviews were completed for this study.

Methodology

Country	Respondent Group	Phase I Interviews Completed	Phase II Interviews Completed	Notes
U S	Patients	4	100	* 1 short of target and includes 1 nurse No more physicians agreed to participate
	Physicians/Nurses	7	65	
Canada	Physicians	--	9*	** 5 short of target Only 10 physicians were targeted by Baxter and 5 refused New guideline was just introduced by German Hemophilia Society discouraging participation in any unsponsored studies
	Patients	2	20	
Germany	Physicians	1	5**	
	Patients	2	20	
France	Physicians	1	10	† 4 short of target However, only 3 hemophilia physicians exist in Denmark 1 declined, 1 not available
	Patients	2	20	
Italy	Physicians	1	10	†† 1 short of target No more physicians agreed to participate
	Patients	--	1†	
Spain	Physicians	--	10	* 6 short of target However, still higher response than expected
	Patients	--	5	
United Kingdom	Physicians	2	20	In most countries Baxter provided Martec a list of physicians to target for this study
	Patients	1	10	
Denmark	Physicians	--	10	
	Patients	--	1†	
Sweden	Physicians	--	10	
	Patients	--	4††	
Japan	Physicians	3	54*	
	Patients	2	20	
Australia	Physicians	2	20	
	Patients	1	10	
New Zealand	Physicians	--	10	
	Patients	--	5	
Total		31	448	



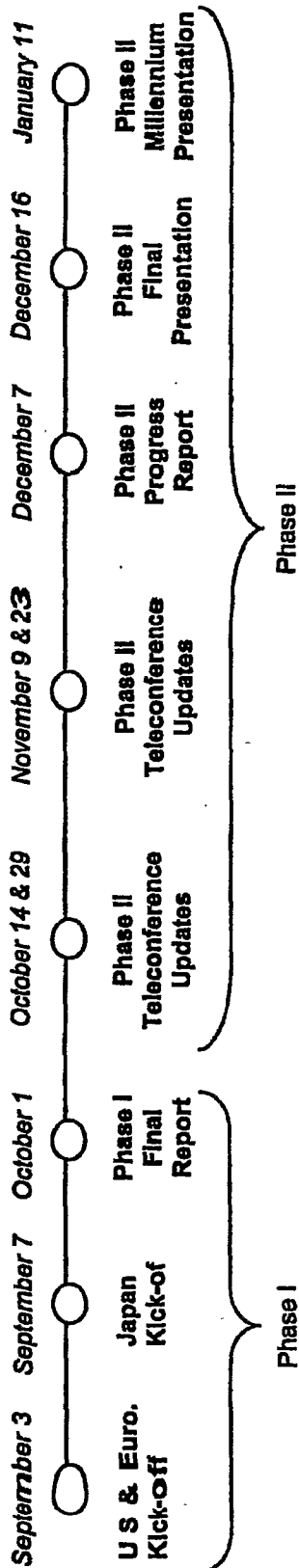
MARTEC

4
GH001020

The project was completed as scheduled.

Methodology

Project Timeline



MARIC

Agenda

Objectives and
Methodology

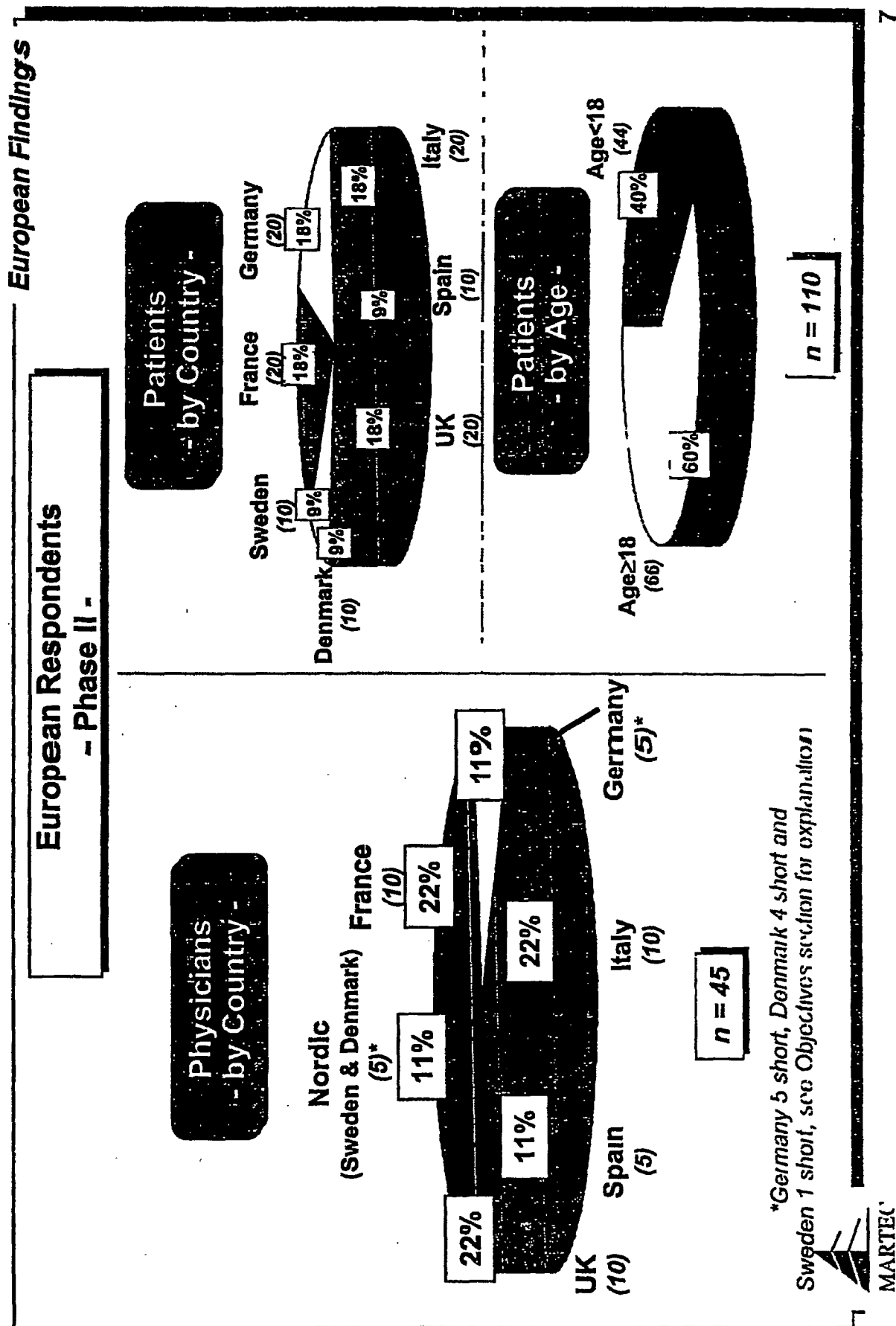
European Findings

European Conclusions and
Recommendations

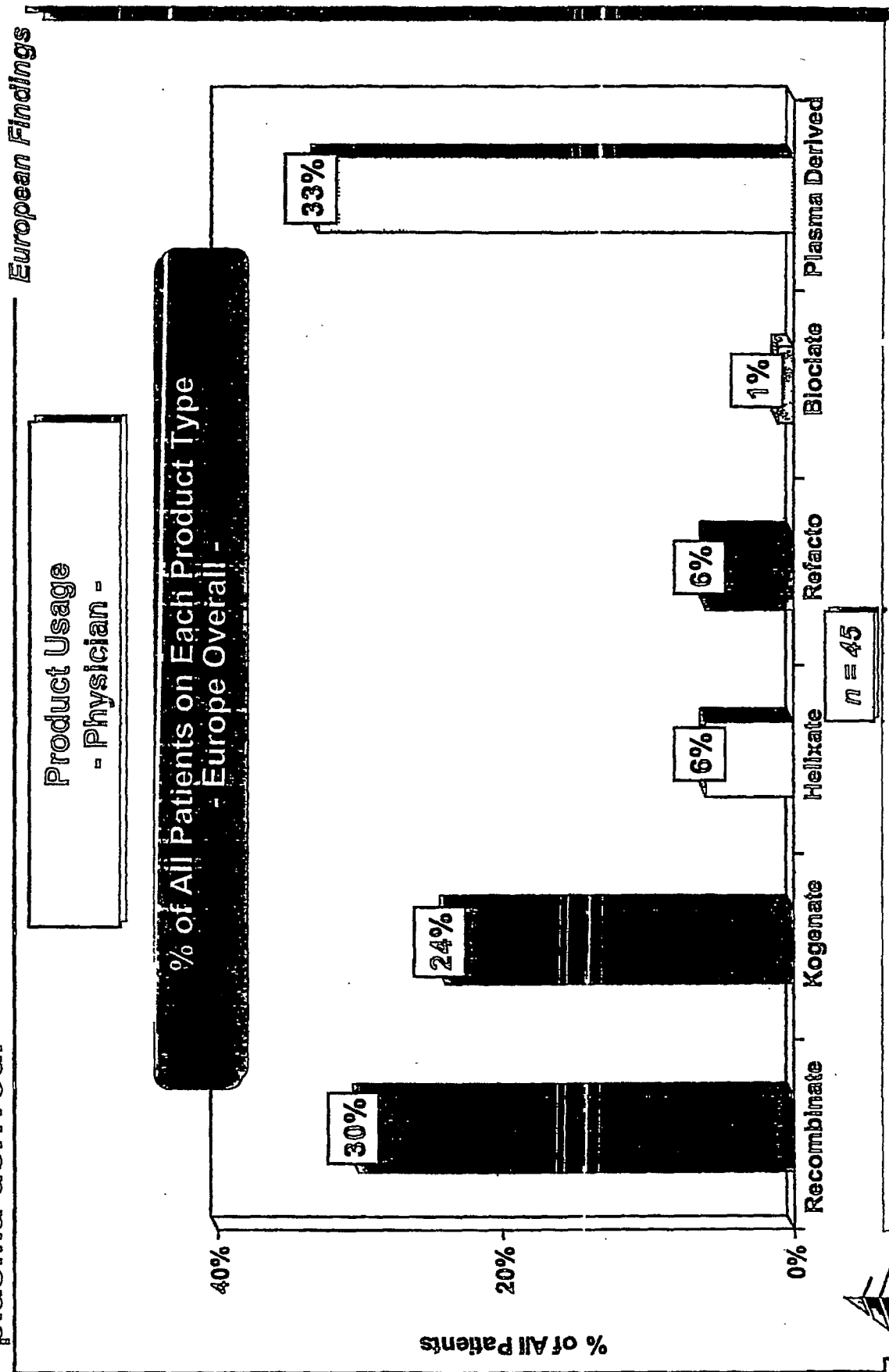


6
GHO01022

While the European patient quotas were met, the physician sample fell 10 short of the target.



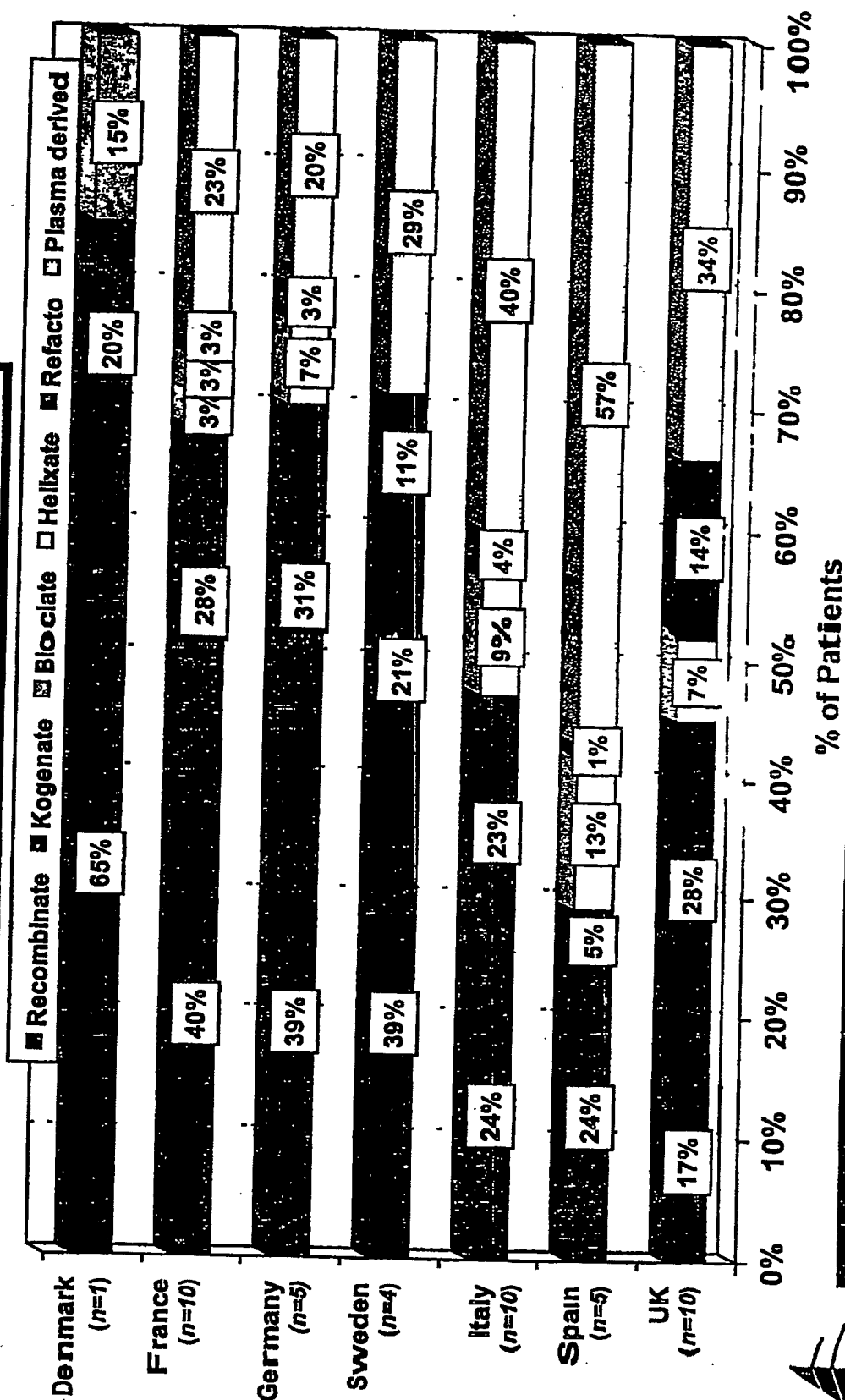
Recombinate is the product prescribed most often by this sample of European physicians. However, one-third of patients still use plasma derived.



Spain and Italy report the least use of recombinant products.

European Findings

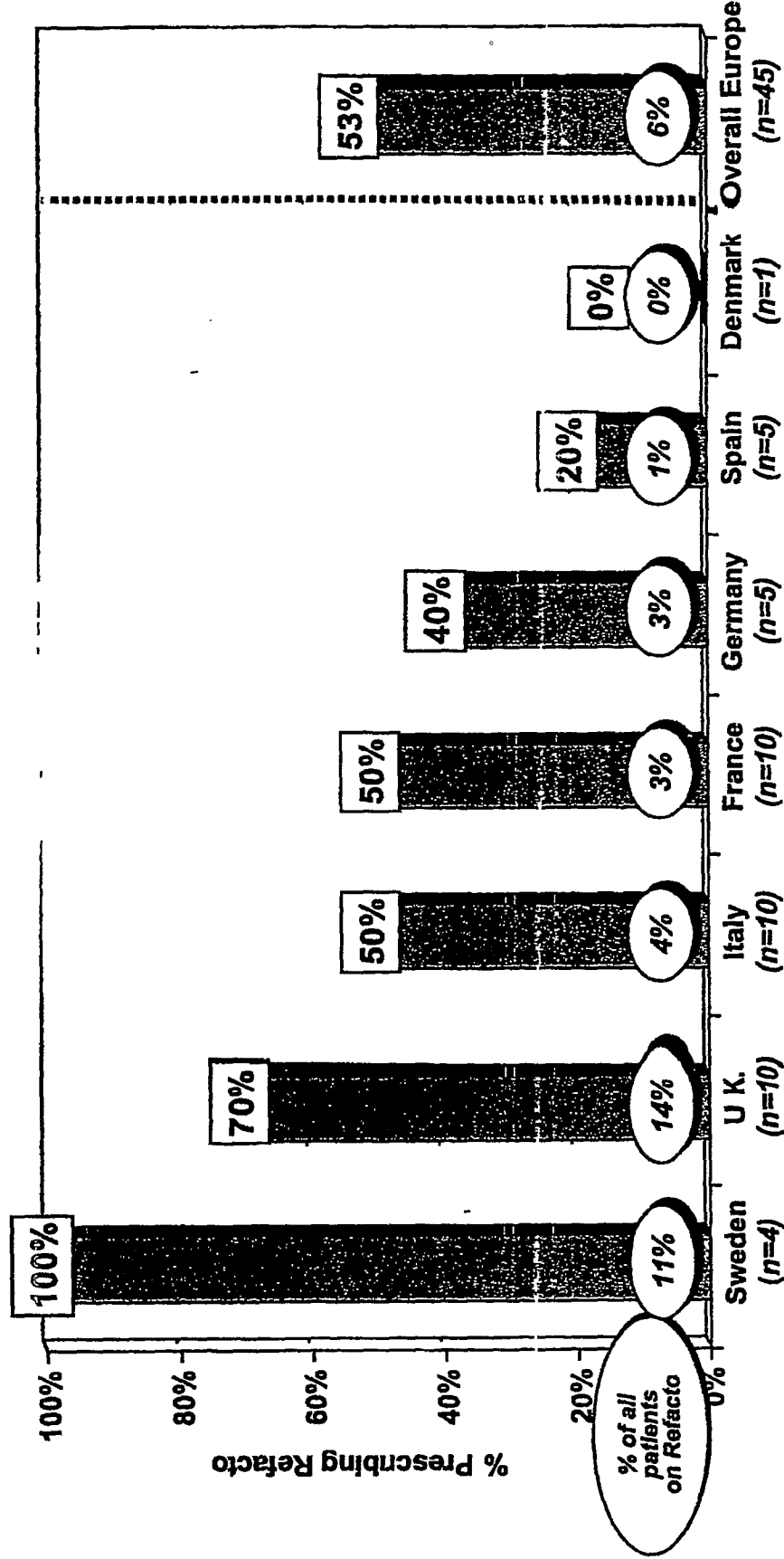
**Physician Reported Product Usage
- by Country -**



Overall, over 50% of European physicians are prescribing Refacto to 6% of the European patient population.

European Findings

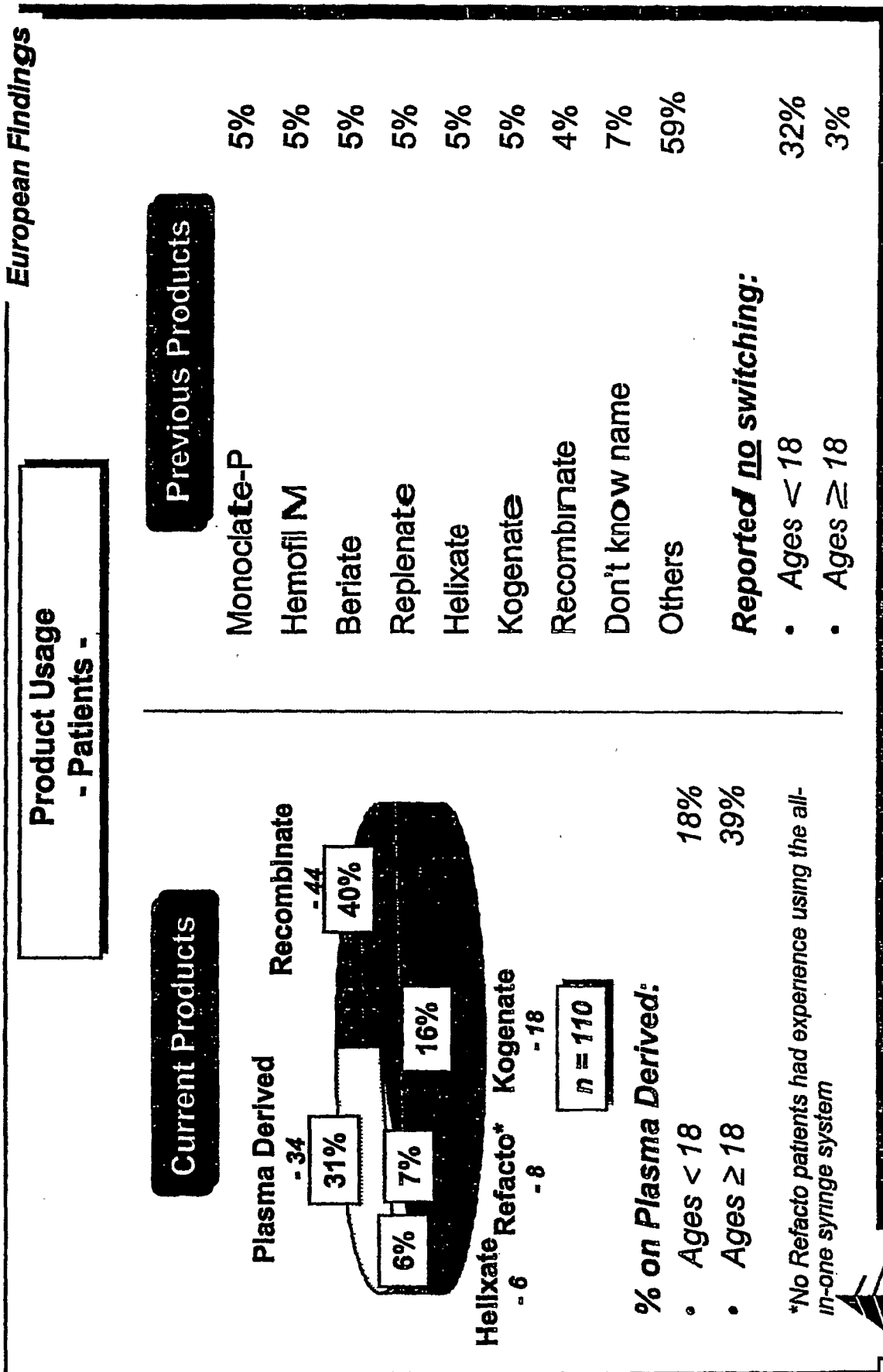
% of Physician Prescribing Refacto*



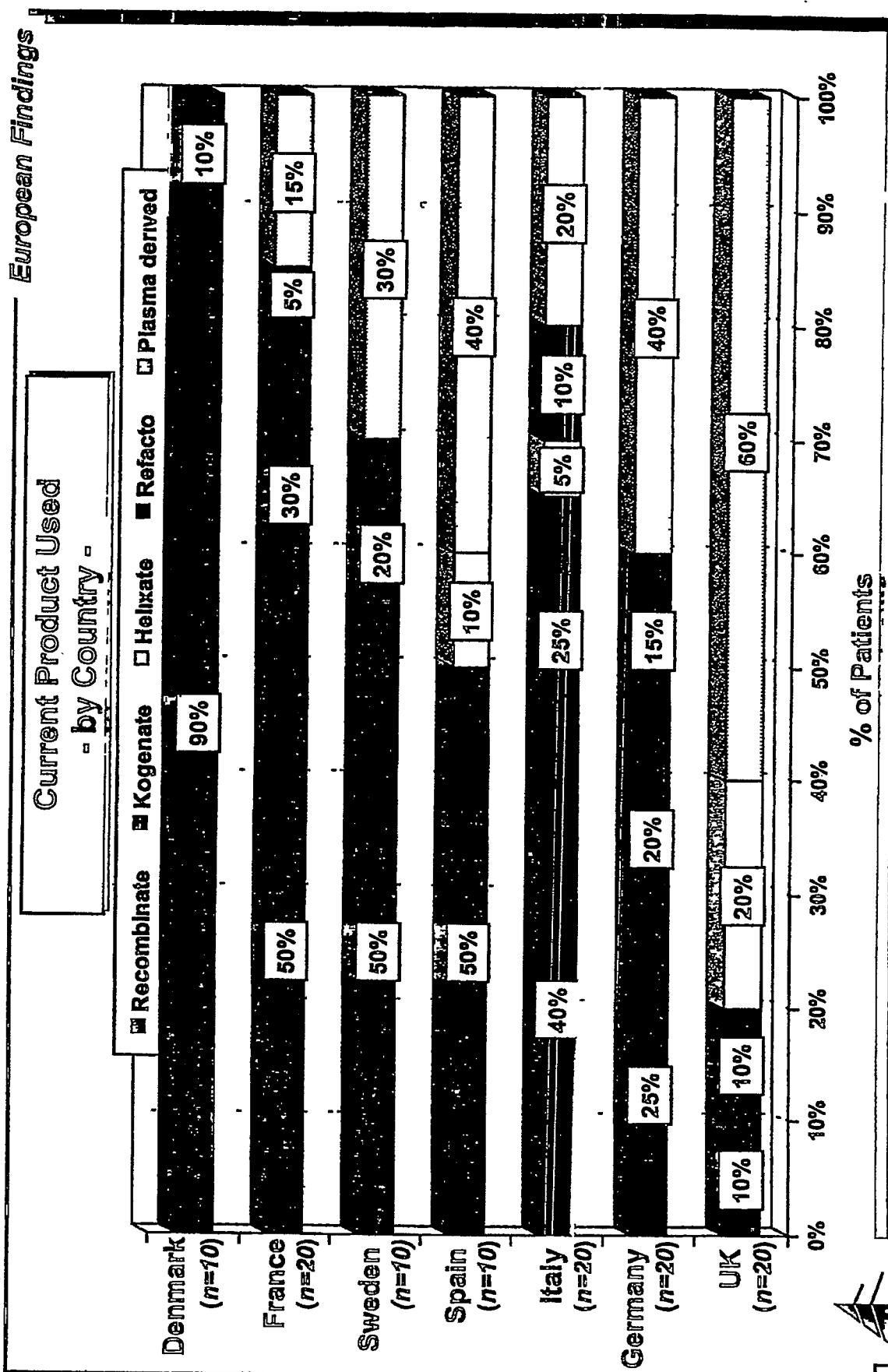
*Not one physician had enough experience with the all-in one syringe system to answer questions regarding it



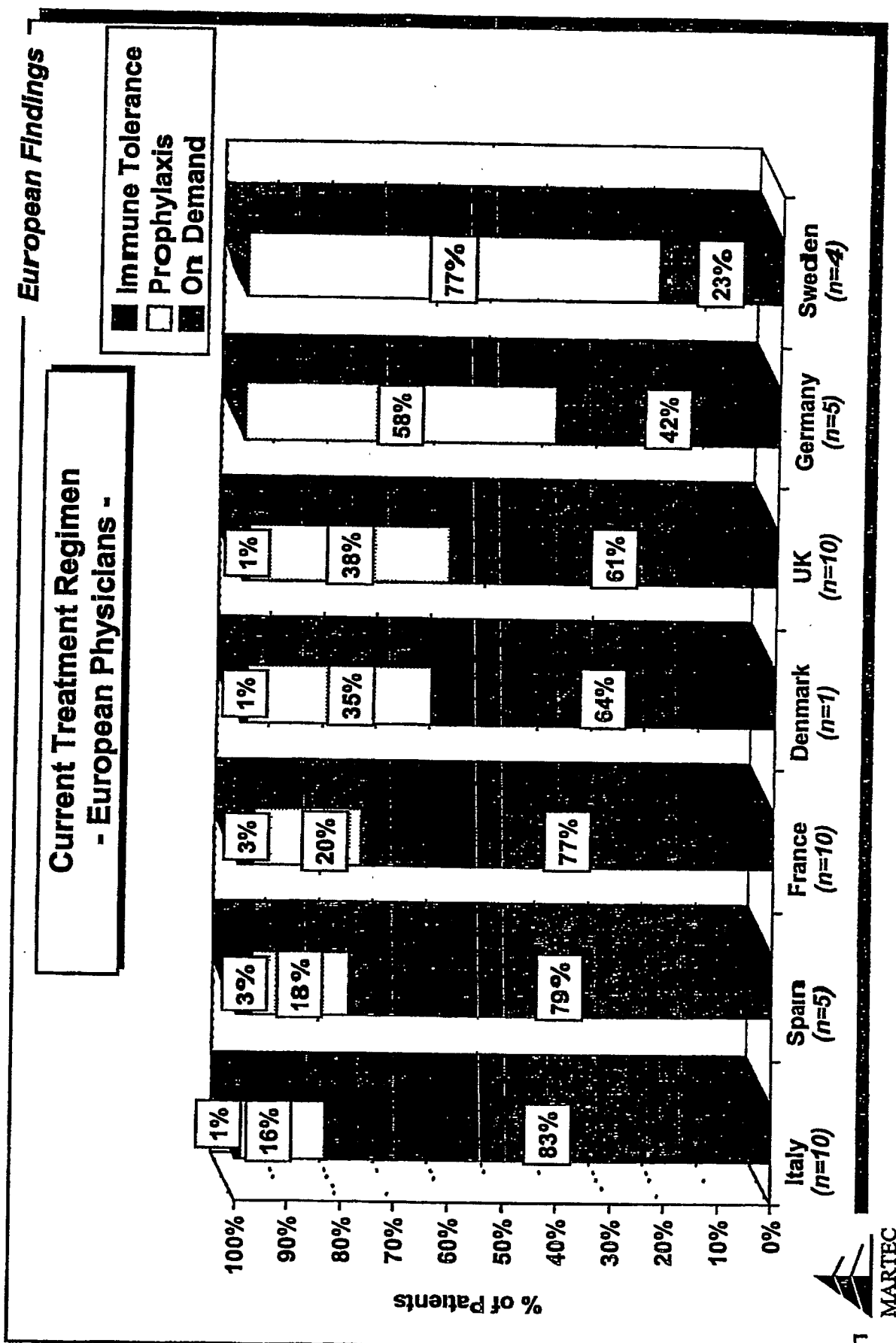
Forty percent of the European patient sample are **Recombinate** users. Younger patients are much less likely to have switched products.



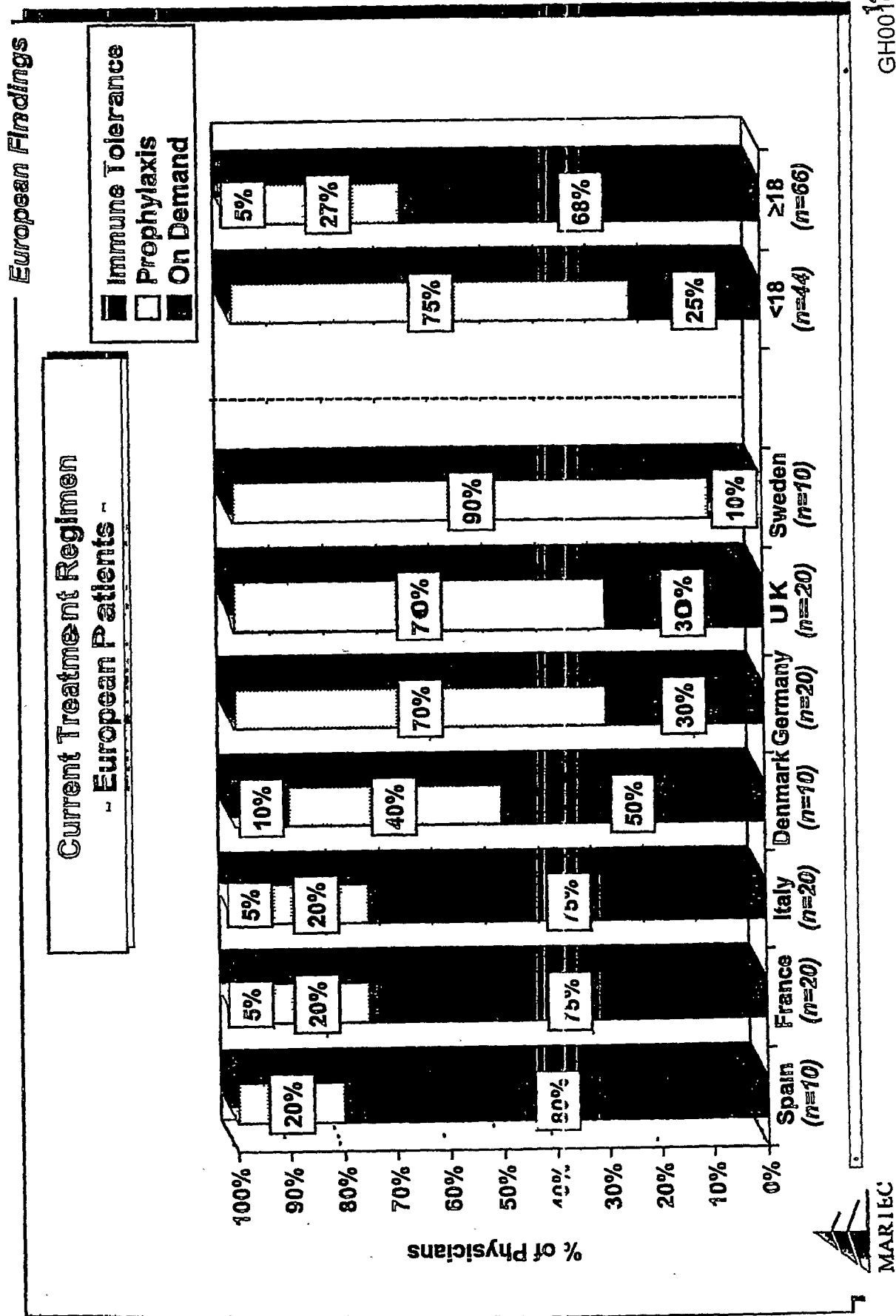
Danish patients report the greatest incidence of Recombinate and recombinate use.



Swedish physicians report the greatest incidence of prophylaxis treatment and Italy the least.



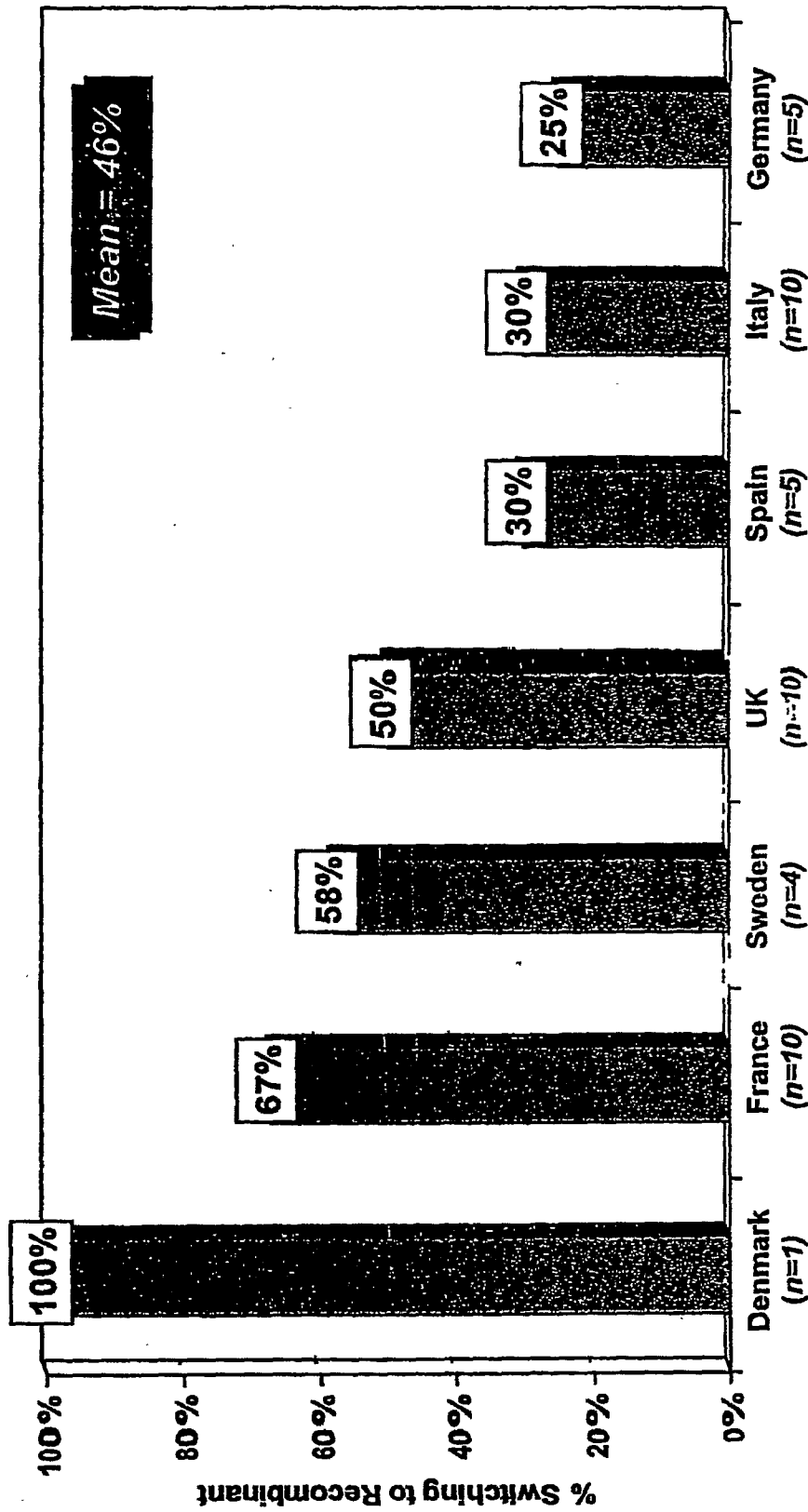
Swedish patients also report the greatest incidence of prophylaxis treatment, as do patients under the age of 18.



On average, European physicians report that nearly fifty percent of their patients that started on plasma derived products have switched to recombinant.

European Findings

% of Physicians' Plasma Derived Patients that Switched to Recombinant



Physicians claim they have the most influence over a patient's decision to switch products.

Switching Reasons - European Physicians -		European Findings	
Reasons for Switching		Primary Switching Influencers	
• Safer, less human protein exposure	50%	• Doctor	57%
• Patient requested	12%	• Patients	24%
• Patient developed virus	7%	• Hemophilia Congress/ Government	12%
• Government edict for all <16	7%	• Hemophilia Society	5%
n = 45			



Contentment with current product is the main reason European plasma derived users have not switched to recombinant products.

European Findings

Reasons for not Switching - Physicians -		Reasons for not Switching - Patients -	
• Content with/used to current product	41%	• Content with/used to current product	38%
• Plasma is cheaper	26%	• Doctor has not recommended	38%
• Plasma is as safe	24%	• Plasma is cheaper	29%
• Fear of inhibitors	18%	• Fear of inhibitors	12%
• Plasma more available	9%	• Plasma more available	6%
• Fear of gene technology (Germany only)	9%		
n = 45		n = 40	



MARTEC

Improved safety is clearly the key driver of past switching for European patients. Availability is the only other reason mentioned frequently.

Reasons for Past Switching - European Recombinant Patients -		European Findings	
#1 Reason for Switching		Secondary Reasons for Switching*	
Safer product - less exposure to human protein	54%		38%
Availability	22%		6%
Very pure product	3%		3%
Less inhibitor incidence	3%		---
Developed viral infection	2%		6%
Lower price	2%		3%
Doctor/nurse recommendation*	2%		2%
Easier to use/Convenience	2%		2%
Government edict (all ≤16 get recombinant in UK)	2%		2%
Less adverse events	2%		0%

*Decreased significantly, from 28% in 1998

n = 63

*Respondents could list multiple secondary reasons for switching



MARTEC

18
GH001034

European patients rely mostly on their physician in making the decisions to switch products. Unlike in the U.S., European nurses provide virtually no influence.

European Findings

Past Switching Influencers - European Patients -

	<u>Most Influential</u>		<u>Secondary Influencers</u>	
	<u>≤18</u>	<u>≥18</u>	<u>≤18</u>	<u>≥18</u>
Doctor	76%	61%	3%	7%
Hemophilia Treatment Center	17%	16%	3%	0%
Own research	3%	13%	10%	8%
Other patients*	3%	0%	0%	5%
Parents/family	0%	5%	10%	0%
Hemophilia Society Coordinator	0%	2%	7%	5%
Nurse	0%	2%	0%	0%
Government Agency	0%	2%	0%	0%
Pharmacist	0%	0%	3%	0%
	n = 29	n = 61	n = 29	n = 61

*Decreased significantly, down from 22% in 1998



MARTEC

Less Viral Risk is clearly perceived by European physicians as the number one benefit of recombinant products.

European Findings

Current Recombinant Product "Likes" - European Physicians -

France		Germany		Italy	
Less viral risk	100%	Less viral risk	80%	Less viral risk	88%
Easy to use	20%	Less exposure to human proteins	80%	Easy to use	25%
Less adverse events	20%	Improved efficacy	40%	Very pure product	13%
Improved efficacy	10%	Easy to use	40%	Good history	13%
Less exposure to human protein	10%	Less adverse events	20%	No refrigeration storage	13%
n=10		n=5		n=8	
Spain		UK		Nordic	
Less viral risk	100%	Less viral risk	90%	Less viral risk	80%
Improved efficacy	80%	Improved efficacy	30%	Manufacturer reputation	40%
Very pure product	20%	Less exposure to human protein	30%	Easy to use	40%
Good availability	10%	Less adverse events	20%	Less adverse events	20%
		Easy to use	20%	Ease of mixing	20%
				Smaller dosage size	20%
n=5		n=10		n=5	



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GH001036

Recombinant users like the *improved viral safety* aspects of their products. Plasma derived users like the *efficacy* of their products.

European Findings

Current Product "Likes" - European Patients -

Recombinant Users

Less exposure to human protein 39%
Easy to use 39%
Limited viral risk 38%
Good efficacy 23%
More potent/concentrated 18%
Ease of mixing 9%
No refrigeration storage 8%

n=76

Plasma Derived Users

Good efficacy 47%
Easy to use 41%
Ease of mixing 22%
Limited viral risk 16%
Very pure product 10%
Good history 10%
Good availability 6%

n=32



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European physicians' top "dislike" of recombinant products is that they still contain human proteins.

European Findings

Current Recombinant Product "Dislikes" - European Physicians -

France		Germany		Italy	
Has human proteins		Has human proteins		Has human proteins	
33%		50%		100%	
Concern of CJD		High price		Limited availability	
22%		50%		13%	
Inhibitor incidence		Limited availability		Inhibitor incidence	
22%		25%		13%	
Limited availability		Difficult treatment process			
22%		25%			
Difficult treatment process					
22%					
Concern of prions					
11%					
n=9		n=4		n=8	
Spain		UK		Nordic	
Has human proteins		Has human proteins		Has human proteins	
60%		38%		60%	
Limited choice of potencies		High price		Limited availability	
40%		Limited availability		40%	
Concern of CJD		Has human proteins		High price	
20%		25%		20%	
Limited availability		Difficult treatment process		All-in-one syringe (not Refacto)	
20%		Refacto difficult to assay		20%	
Uses animal proteins in manufacturing process					
20%					
n=5		n=8		n=5	



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22
GHO01038

While many respondents did not report a dislike, the greatest dislike mentioned by recombinant users is the product is still exposed to/stabilized by human albumin.

European Findings

Current Recombinant Product "Dislikes" - European Patients -

Recombinant Users	Plasma Derived Users
No dislikes reported	No dislikes reported
28%	44%
<i>Stabilized with albumin</i>	Infusion volume too large
21%	34%
Requires IV administration	Risk of viral infection
14%	16%
Poor quality needles (too blunt)/ infusion method	Poor quality needles/ infusion method
14%	16%
Poor range/selection of potencies	Poor packaging
8%	6%
Poor packaging	Requires IV administration
8%	3%
Requires transfer needles	Requires refrigeration
6%	3%
Limited availability	Difficult to mix
4%	3%
Concern of CJD	
1%	
Concern of prions	
1%	
Exposure to animal proteins in manufacturing process	
1%	

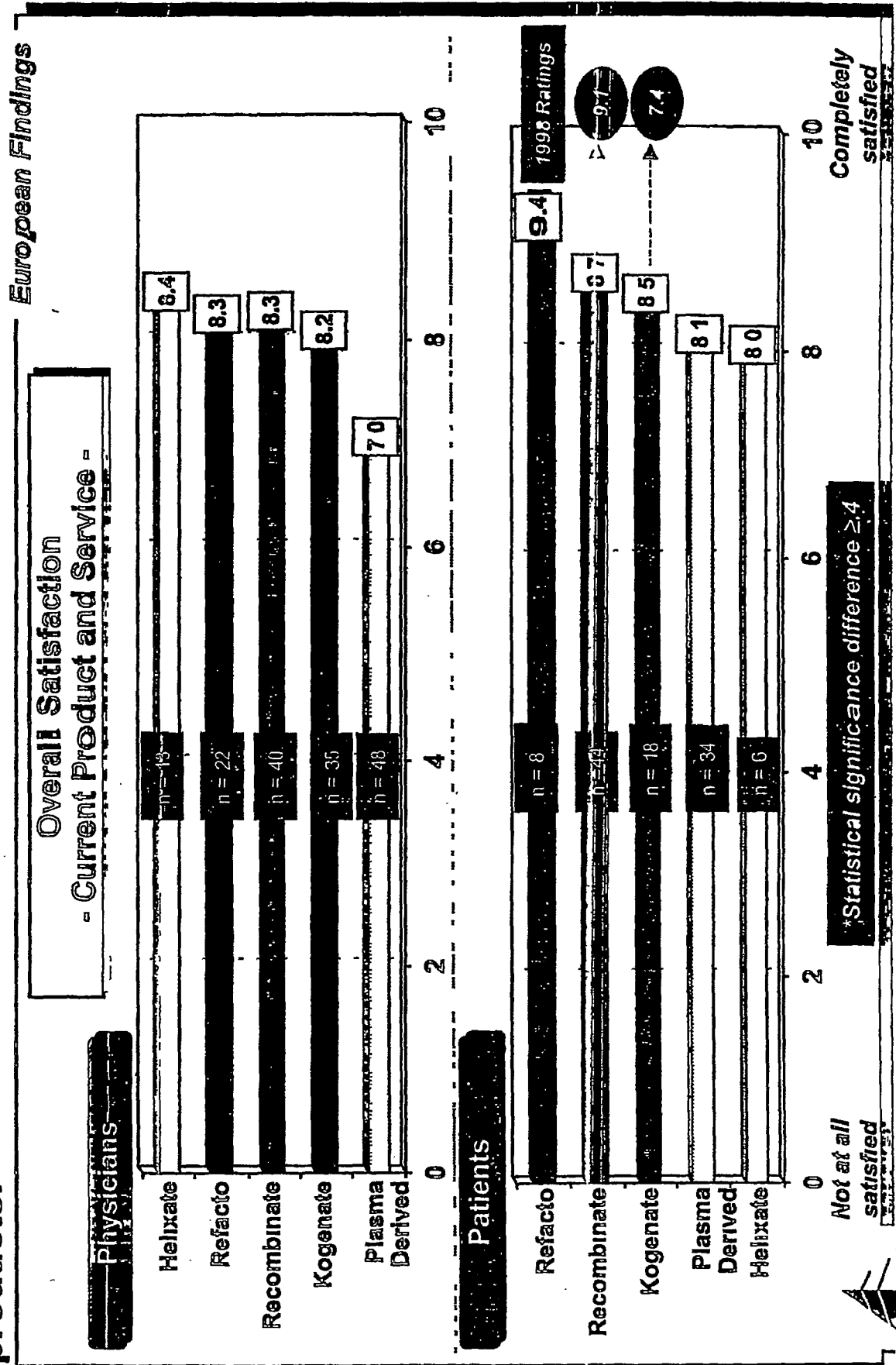
n=76

n=32



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Physicians are equally satisfied with all recombinant products. Overall, Refacto patients are the most satisfied with their current products.



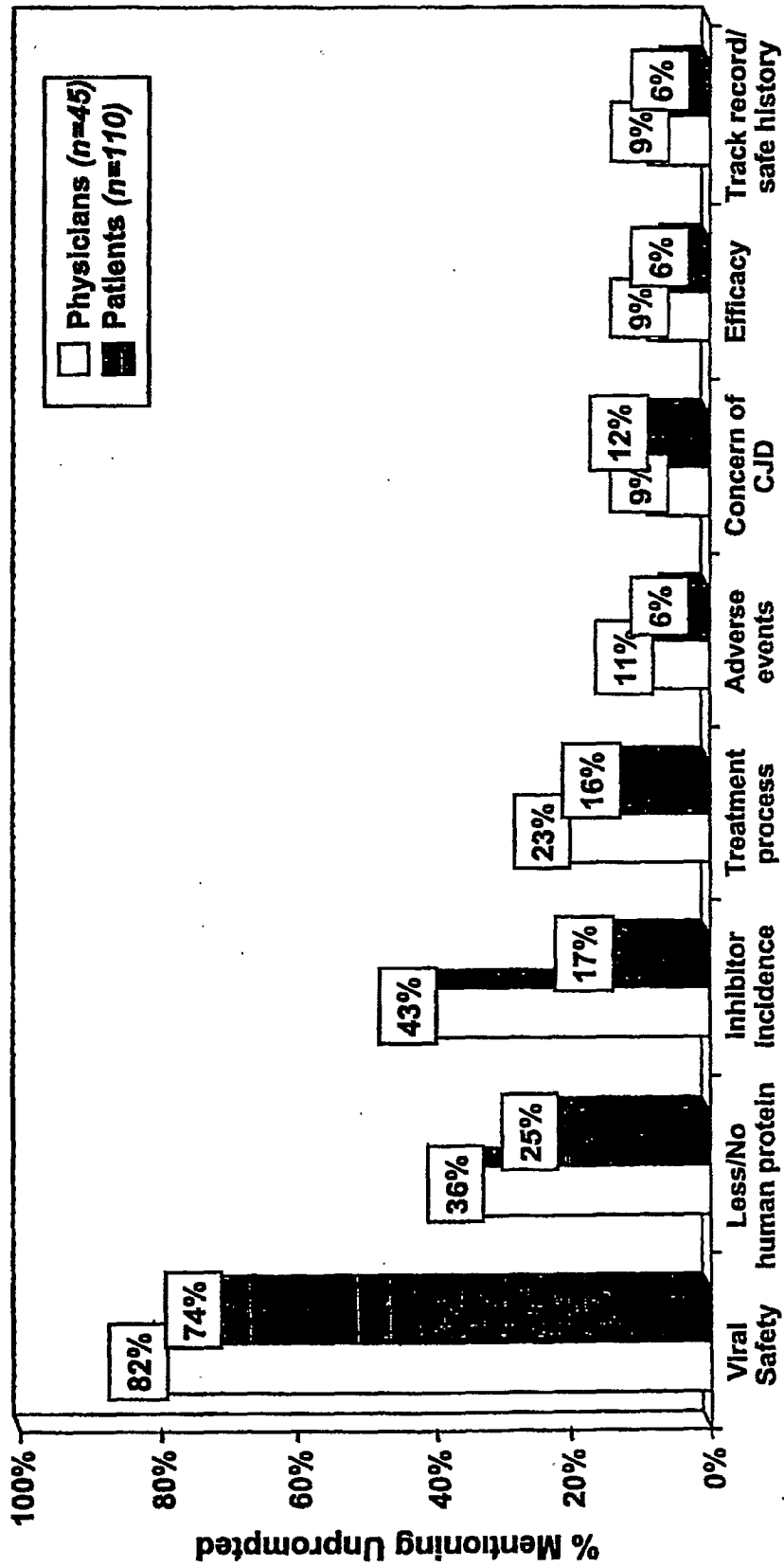
MARTEC

24
GH001040

Viral Safety, in general, is what most respondents think of when thinking of recombinant product safety.

European Findings

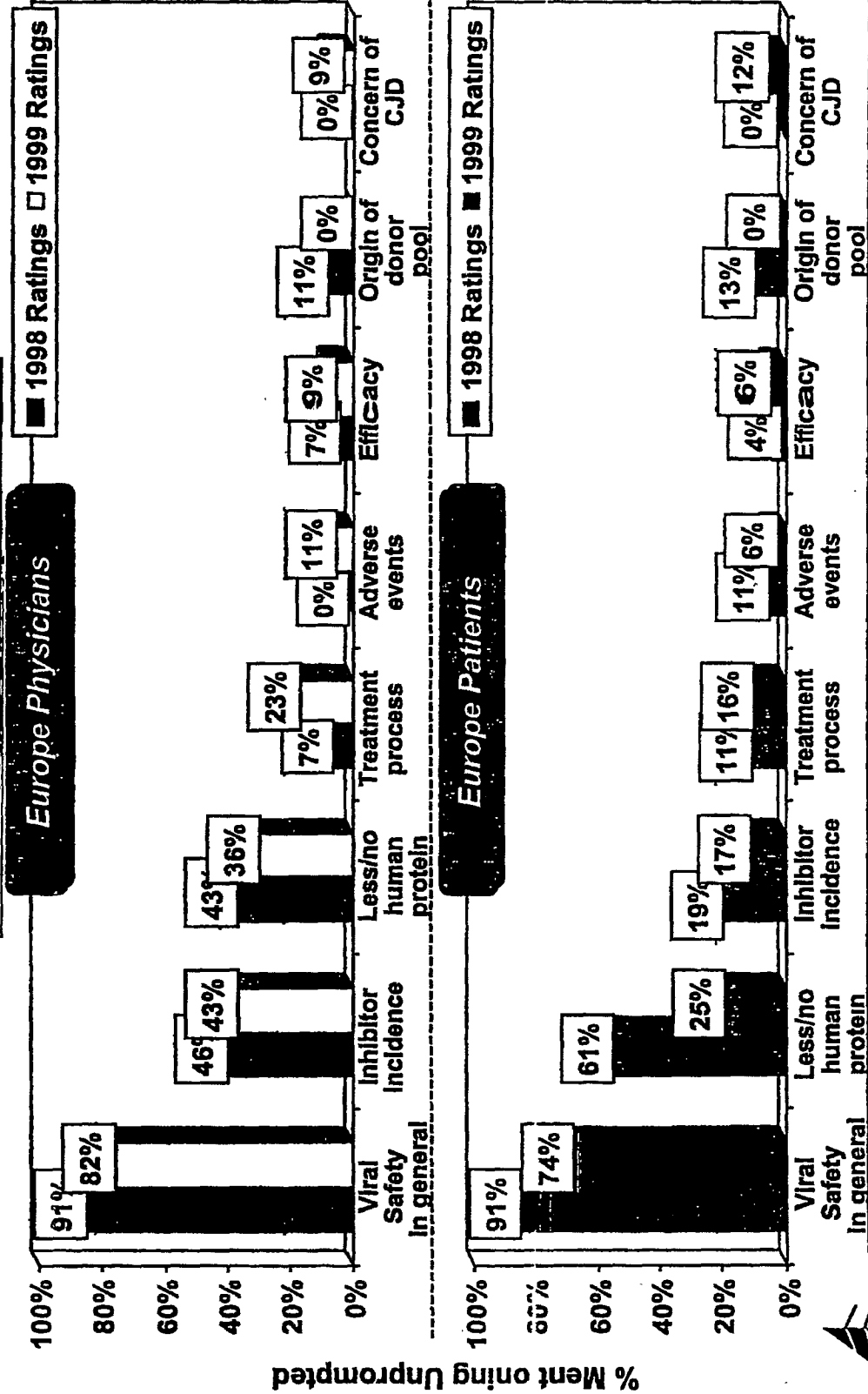
Unprompted Elements of Safety



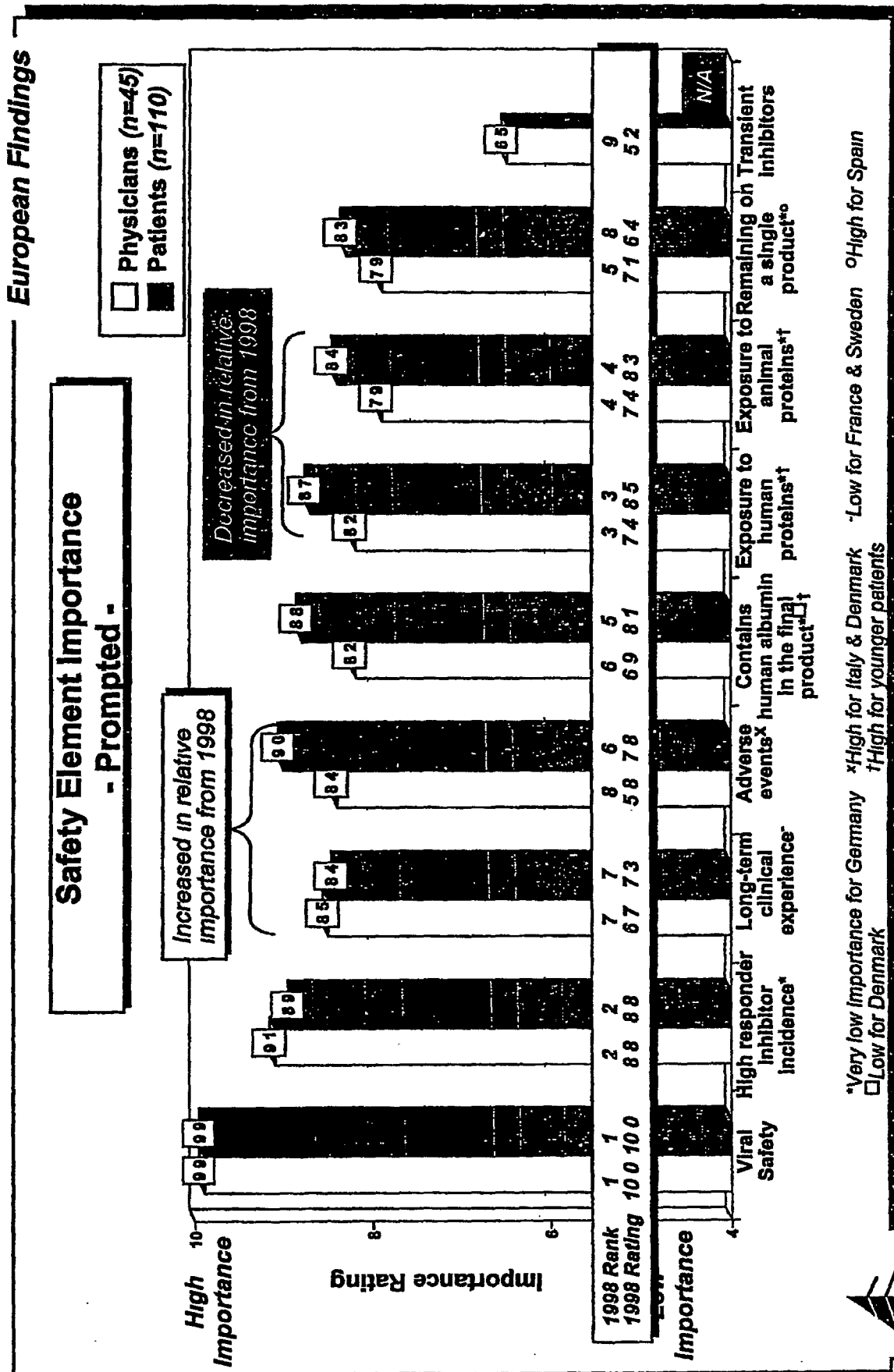
Concern of CJD replaces origin of donor pool on this year's unprompted safety list. Viral safety issues still rate the highest, but were mentioned by fewer respondents in 1999.

U.S. Findings

Unprompted Elements of Safety - 1998 vs. 1999 -



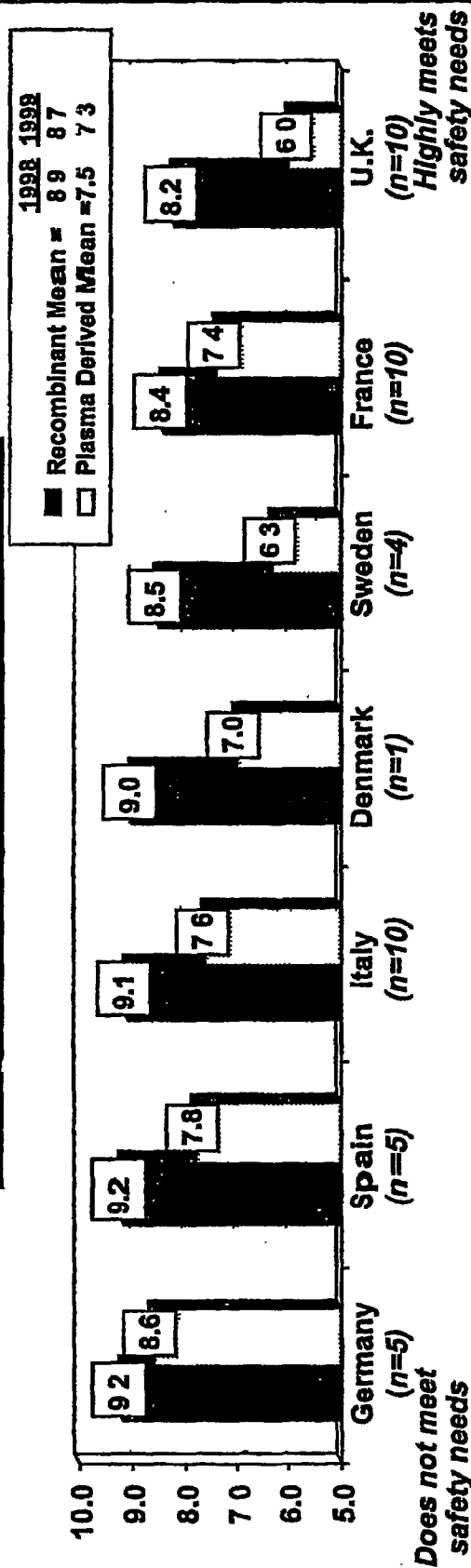
Viral safety clearly rated the highest in terms of safety importance for both groups in both 1998 and 1999.



Physicians in Sweden, France and the U.K. rate their satisfaction with the safety of recombinant products lower than physicians in other countries.

European Findings

Safety Needs of Current Products - Physicians -



Comments

"They are safe products so I give them a 9 They don't get a 10 because they still contain albumin" - Italian Physician

"The recombinant products certainly provide better viral safety than plasma derived products" - Spanish Physician

"The products are good, but still use animal or human proteins They also show inhibitor formation" - U K Physician

"These products can transmit B parvo virus as well as CJD"

- Swedish Physician

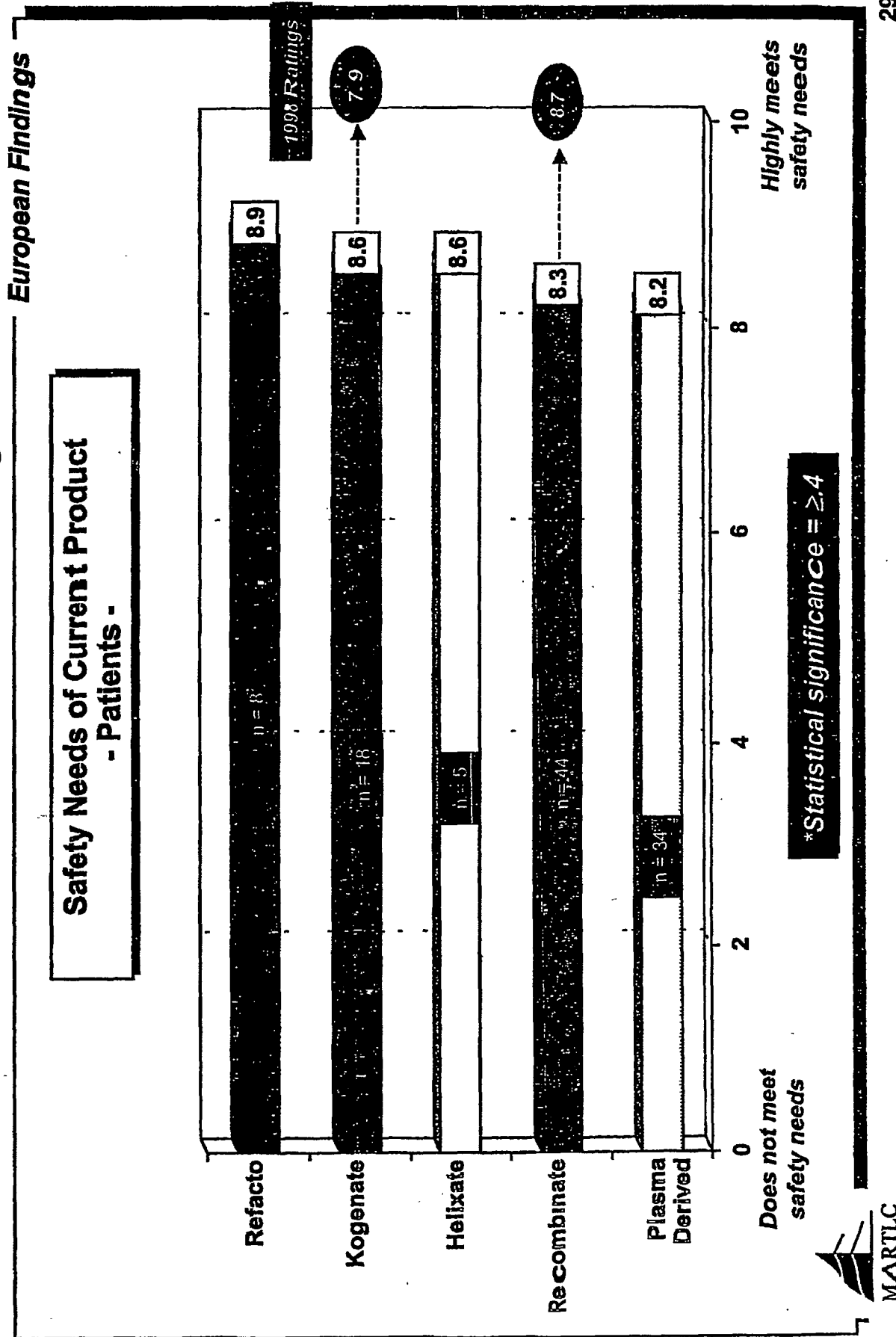
"Recombinant products are not absolutely safe either"

- French Physician

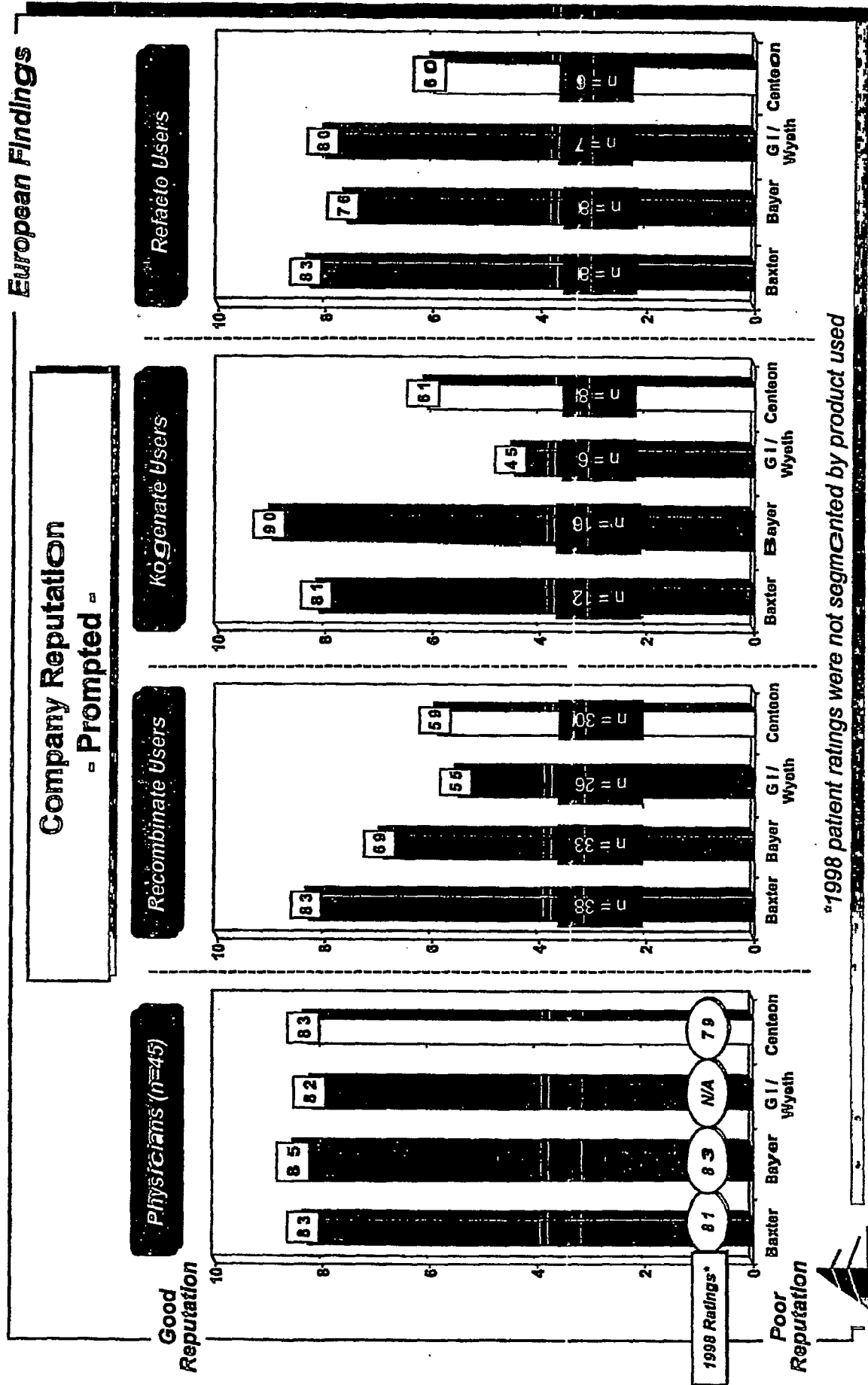


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As with overall satisfaction, Refacto receives the highest ratings in terms of meeting patients' safety needs. Kogenate's rating increased from 1998 and Recombinate's rating decreased.



Recombinate and Kogenate users rate the reputations of both GI/Wyeth and Centeon very low.



Not providing information was often mentioned as a reason a supplier received low reputation ratings.

European Findings

Company Reputation Comments

Physicians

"Centeon is good because of good support of agents, supply of good product information, product development and its availability is good. Baxter received lower ratings because they provide no new information on product development"
- Italian Physician

"I wish Baxter would supply us with more information. Wyeth is too aggressive in selling, I don't like that"
- German Physician

"Bayer is never clear with us. They often have supply problems and don't cooperate well with the treatment centers. Wyeth is too commercialized and does no R&D"
- French Physician

"Baxter uses a bovine serum, therefore, I prefer the other companies"
- Spanish Physician



Patients

"I gave a low rating to all companies because of the poor way they handled the HIV problems in the 1980's"
- Spanish, ≥18 Patients

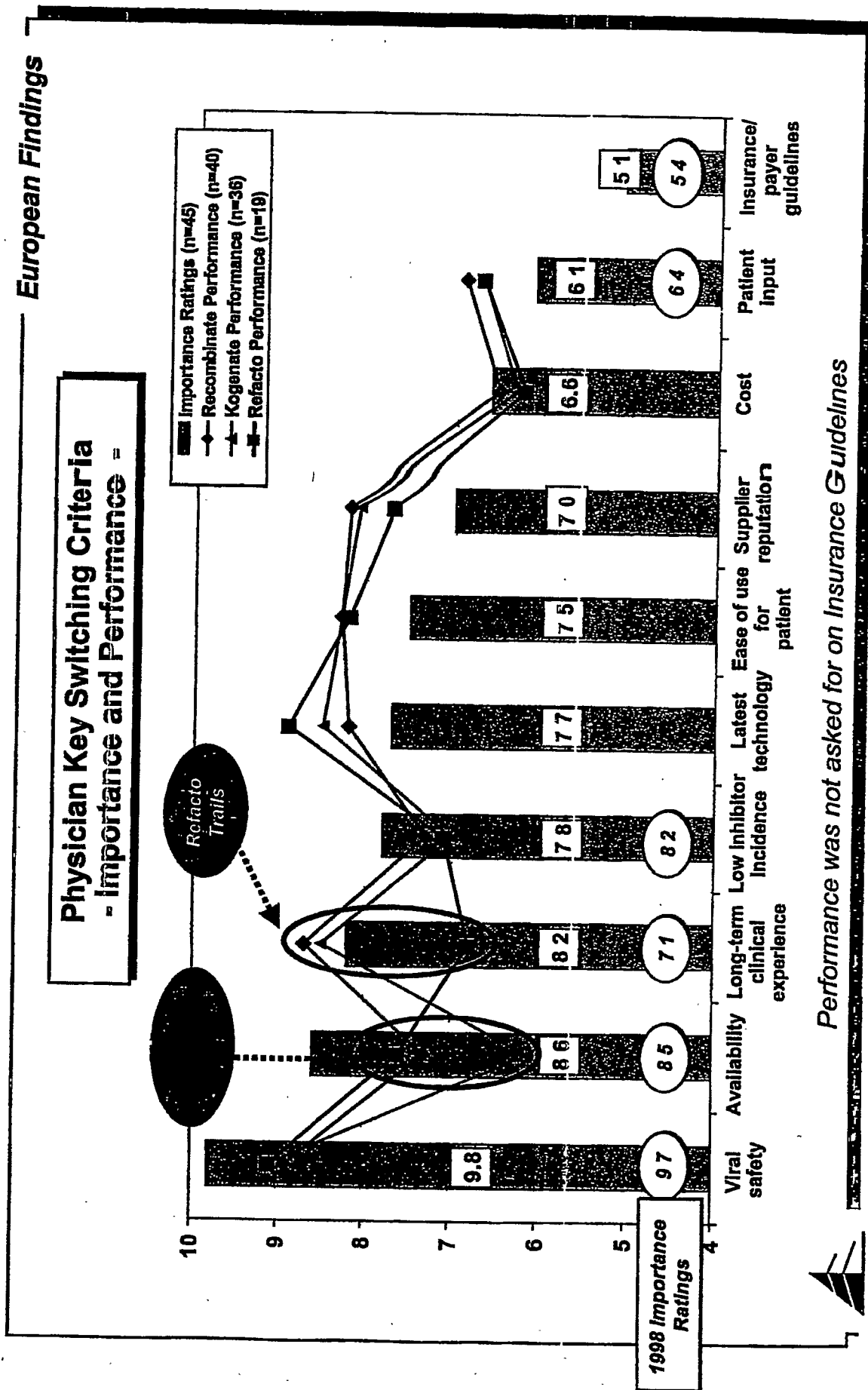
"The product's price is too high. All suppliers abuse the situation and dependency of patients"
- French, ≥18 Patient

"I am confident that Baxter delivers a good product. I don't know much about the other suppliers, but have heard nothing bad about them"
- Swedish, <18 Patient

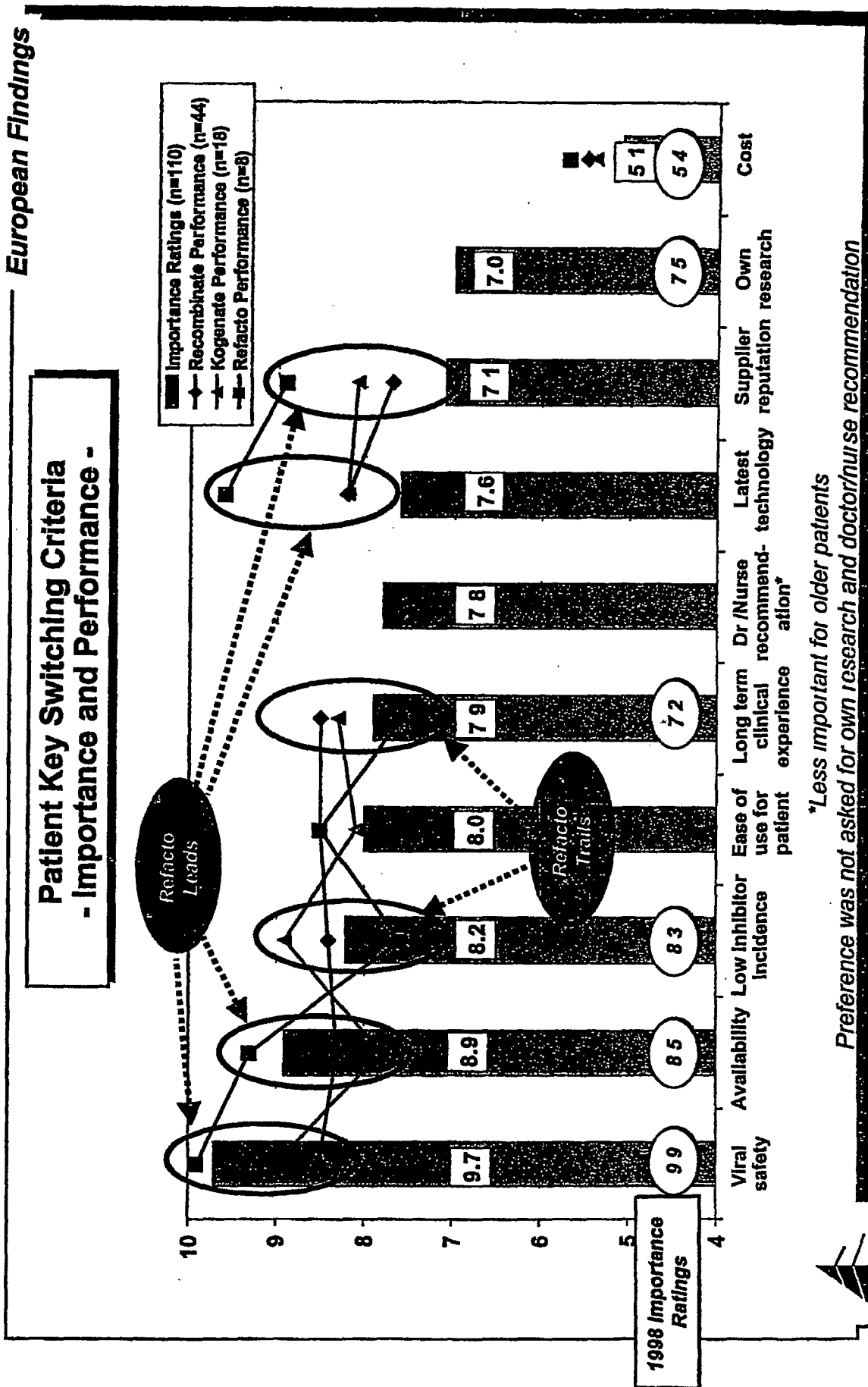
"Baxter should give patients more information. Bayer and Centeon have had supply problems. Wyeth has not been on the market long enough"
- German, <18 Patient

"I've used Baxter for the last 10 years with good experience. My friends that use Bayer are happy with them. But I don't trust any company completely"
- Danish, ≥18 patient

Not surprisingly, Refacto receives the highest ratings in Latest Technology, but the lowest in Long-Term Clinical Experience.



Patients give Refacto superior ratings in Viral Safety, Availability, Latest Technology and Supplier Reputation.

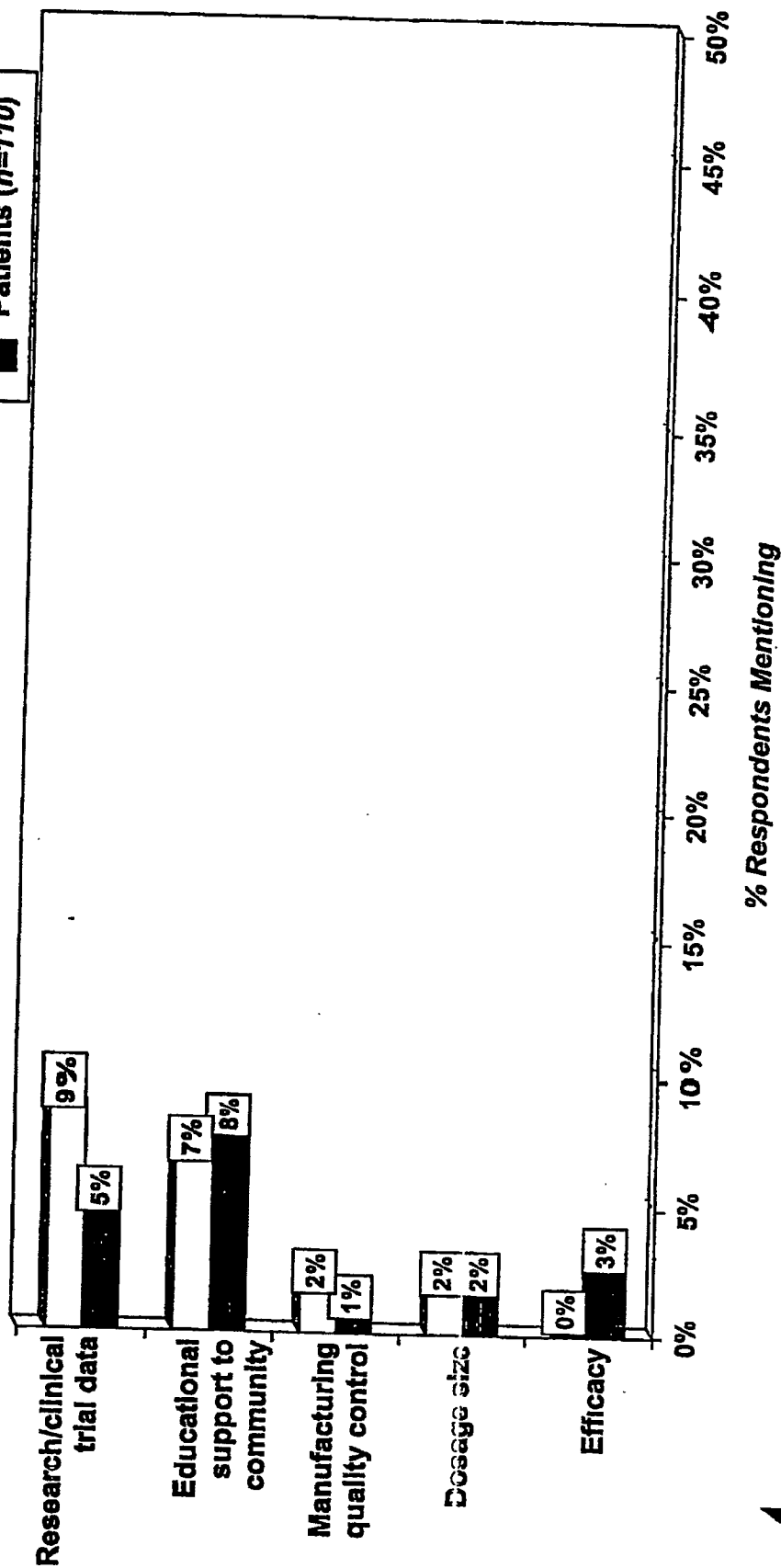


Clinical Data and Educational Support were the most often mentioned as additional key selection criteria.

European Findings

**Other Selection Criteria
- Not from list provided -**

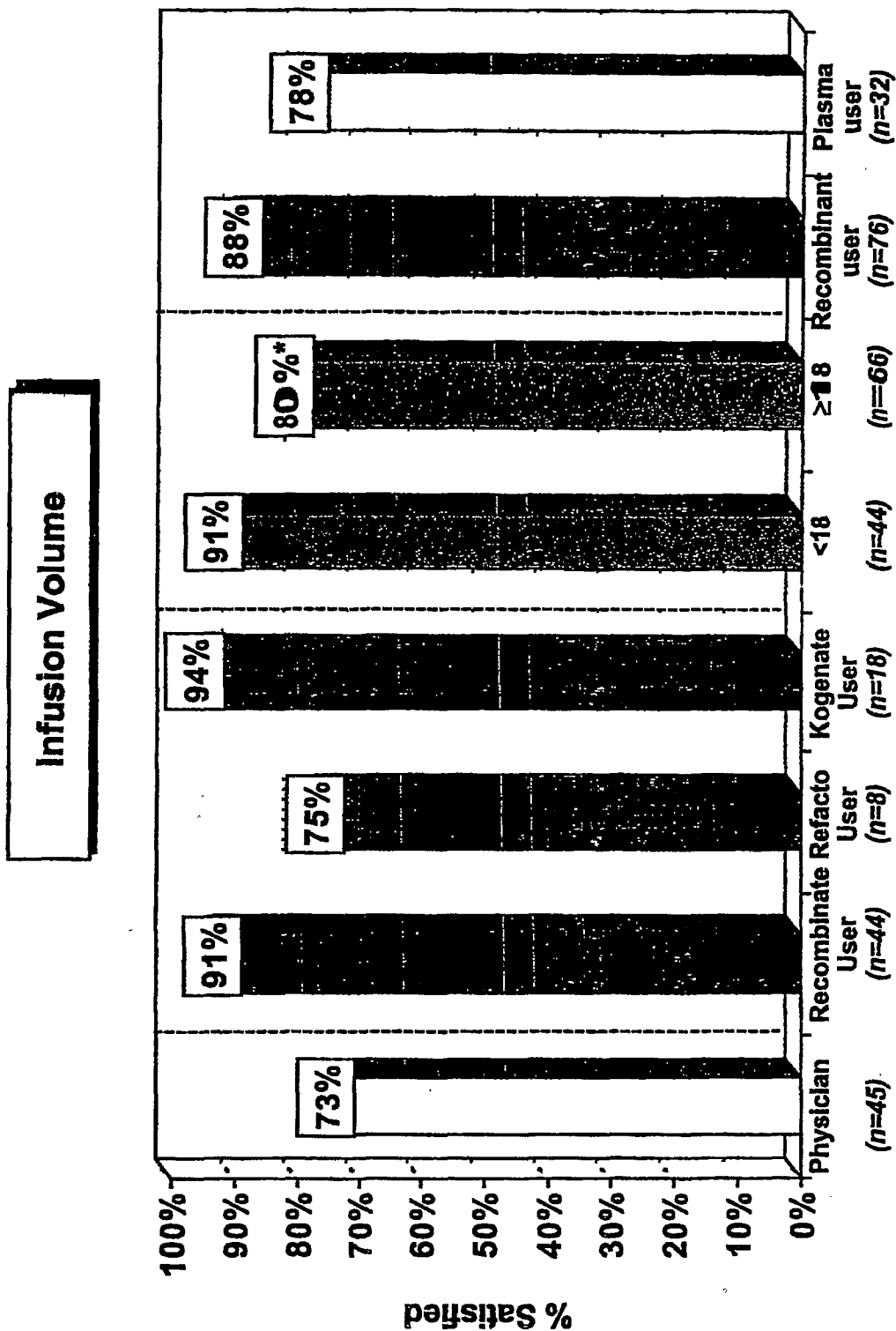
□ Physicians (n=45)
■ Patients (n=110)



34
GH001050

European recombinant patients are typically satisfied with the infusion volume of their products.

European Findings



*Consists of a high proportion of plasma derived users



Most dissatisfaction results from high infusion volumes.

European Findings

Infusion Volume Improvements

Physicians

Want less fluid

20%

Product wasted, too much left
in tubing

2%

Too much fluid for children

2%

10 ml is too small, prefer 30 ml

2%

n = 45

Recombinant Patients

Want less fluid

12%

Too concentrated

1%

n = 76

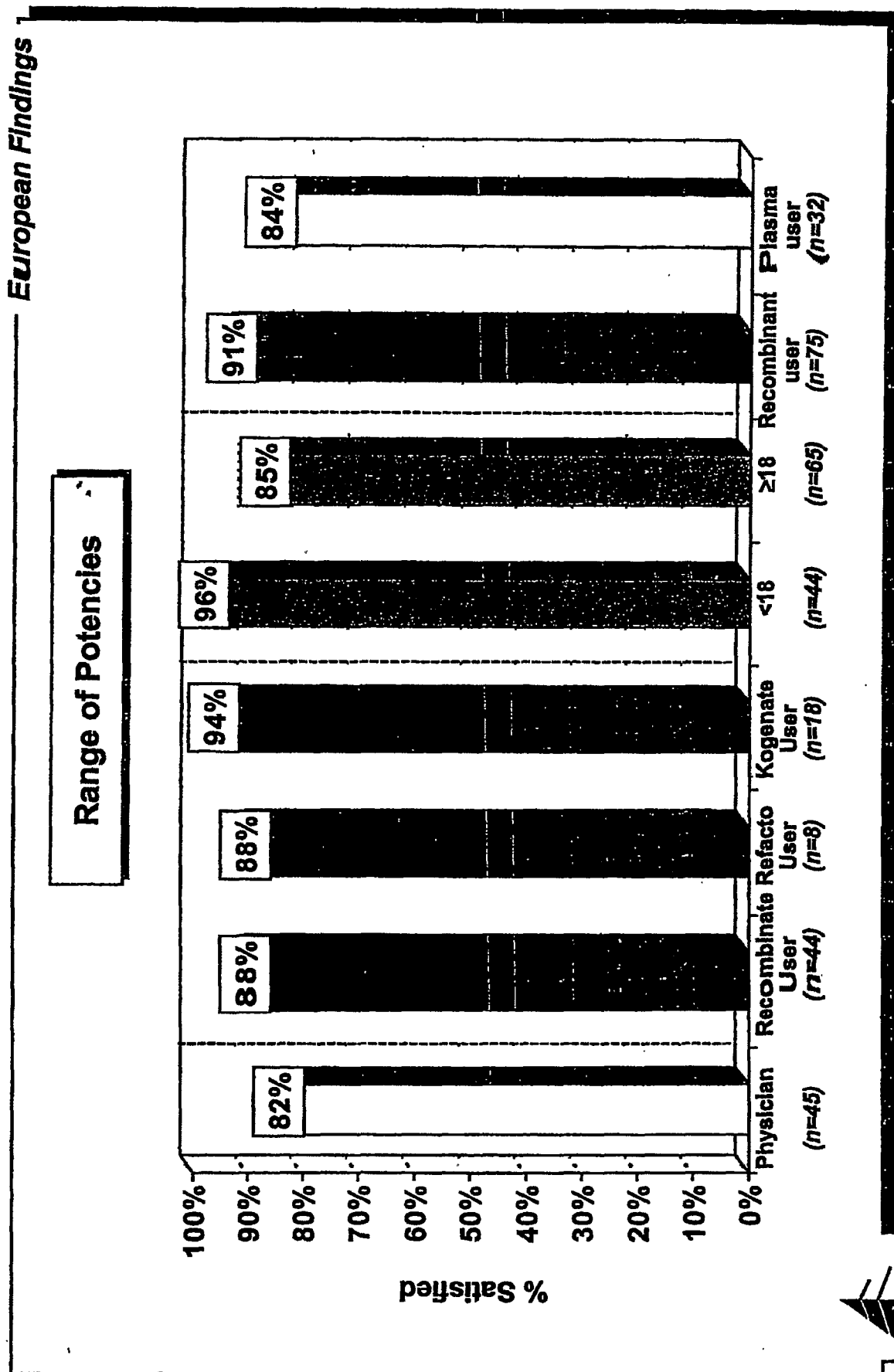


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36

GH001052

Most respondents are satisfied with the range of potencies offered by their products.



Dissatisfaction here results from not high enough potencies (>1000 IU) and too limited variety of potency choices.

European Findings

Range of Potencies Improvements

Physicians

Higher potencies (>1000 IU)

11%

Greater variety of potencies

6%

Lower potencies (50 & 100 IU)

4%

n = 45

Recombinant Patients

Higher potencies (>1000 IU)

5%

Greater variety of potencies

5%

n = 76



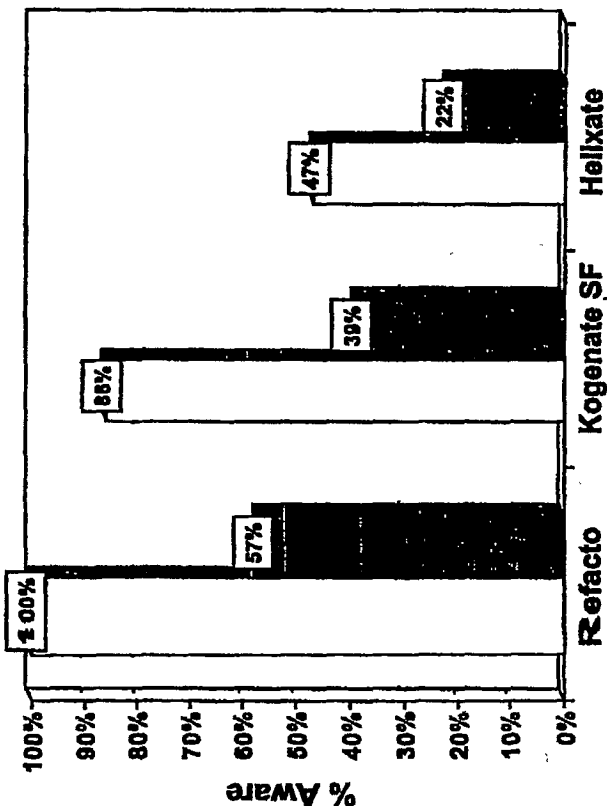
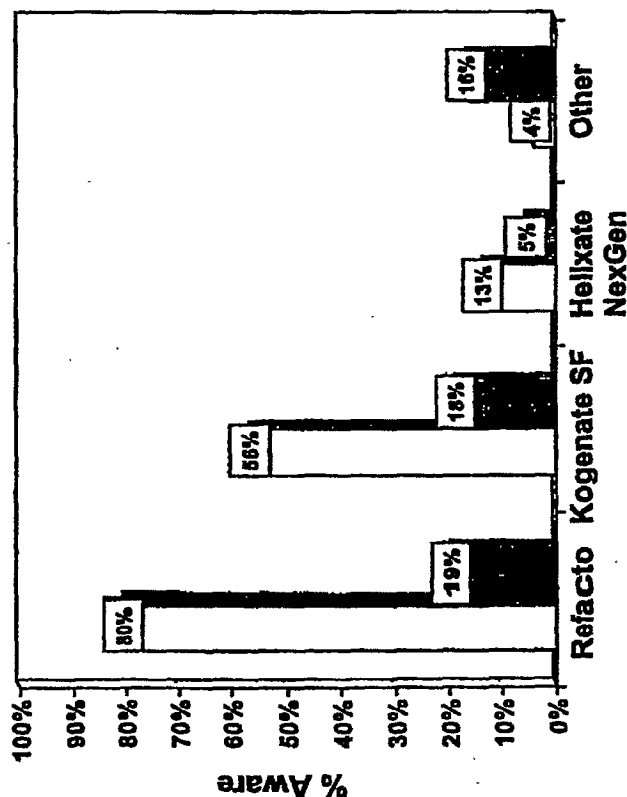
European respondents are most aware of Refacto. Physicians are more aware of new products than patients.

European Findings

New Product Awareness

Unaided

Aided



□ Physicians (n=45)
■ Patients (n=110)*

*Older patients exhibit a higher awareness of all new products



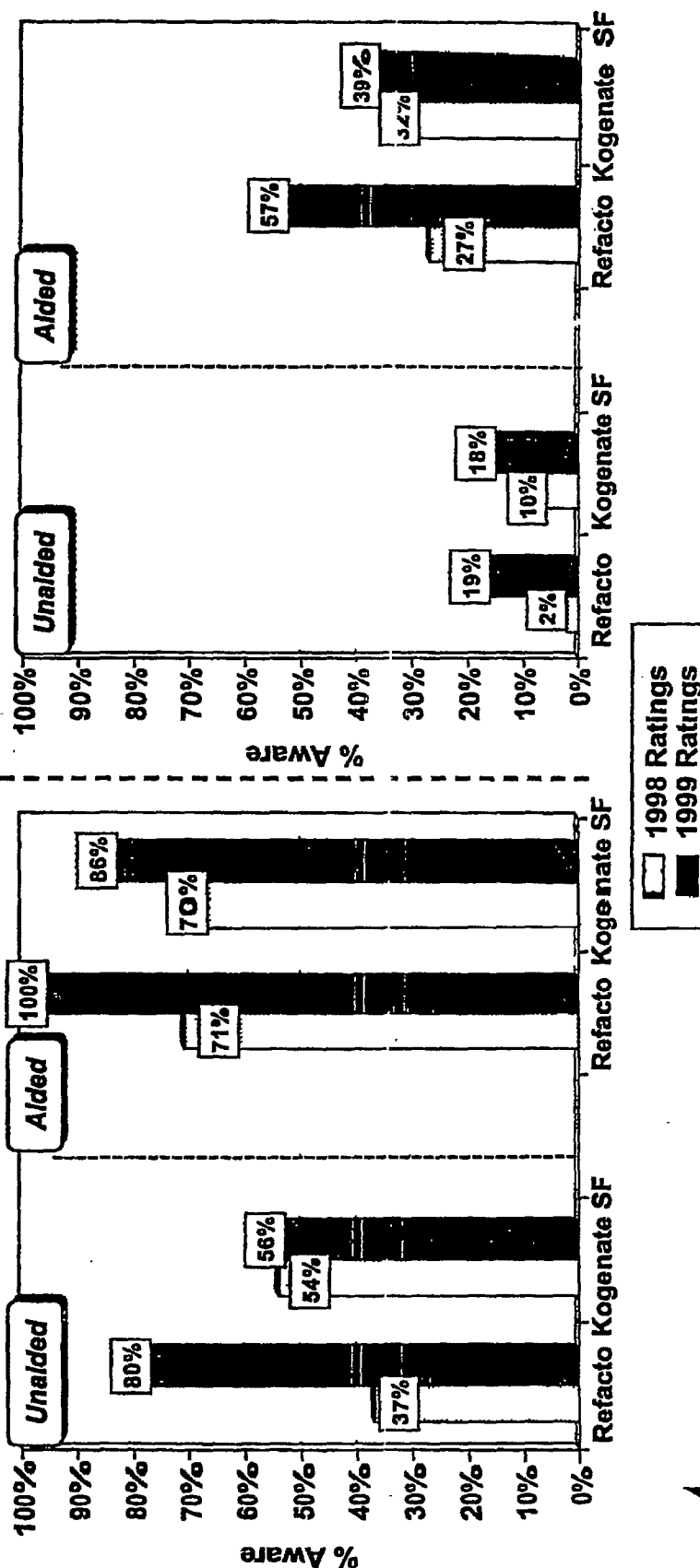
Awareness of Refacto in Europe has increased significantly from 1998 to 1999, surpassing Kogenate SF as the product with the greatest level of awareness.

European Findings

**New Product Awareness
- 1998 vs. 1999 -**

European Physicians

European Patients



As with the U.S. physician data, the majority of the European physicians believe the next generation products will be *Albumin Free*.

European Findings			
Current Unaltered Knowledge of New Products - European Physicians -			
Refacto	Kogenate SF	Helixate NexGen	
• <i>Albumin free</i> 56%	• <i>Albumin free</i> 60%	• No answer 42%	
• B-domain deleted 49%	• Less albumin 22%	• <i>Albumin free</i> 20%	
• Less albumin 9%	• Sucrose as stabilizer 13%	• Heard of, but nothing specific 20%	
• Greater risk of inhibitors 9%	• Heard of, but nothing specific 11%	• Same as Kogenate SF 13%	
• In trials/coming out soon 7%	• No answer 11%	• Less albumin 7%	
• No answer 7%	• In trials/coming out soon 9%		
• No animal proteins 4%			
% of respondents mentioning			
n = 45			



MARTEC

While most patients had no knowledge, those that did answer this believed that the new products will be *albumin free*.

Current Knowledge of New Products - European Patients -			European Findings	
Refacto	Kogenate SF	Helixate NexGen		
• No answer 49%	• No answer 65%	• No answer 82%		
• Albumin free 23%	• Albumin free 15%	• Heard of, but nothing specific 9%		
• Heard of, but nothing specific 18%	• Heard of, but nothing specific 14%	• Albumin free 5%		
• Added viral inactivation 5%	• Less albumin 3%	• It's a second generation product 4%		
• B-domain deleted/ smaller molecule 4%	• It's a second generation product 5%	• Less albumin 3%		
• Improved treatment process 4%	• In trials/coming out soon 2%			
• In trials/coming out soon 3%				
• Higher inhibitor incidence 3%				
% of respondents mentioning			n = 110	



MARTEC

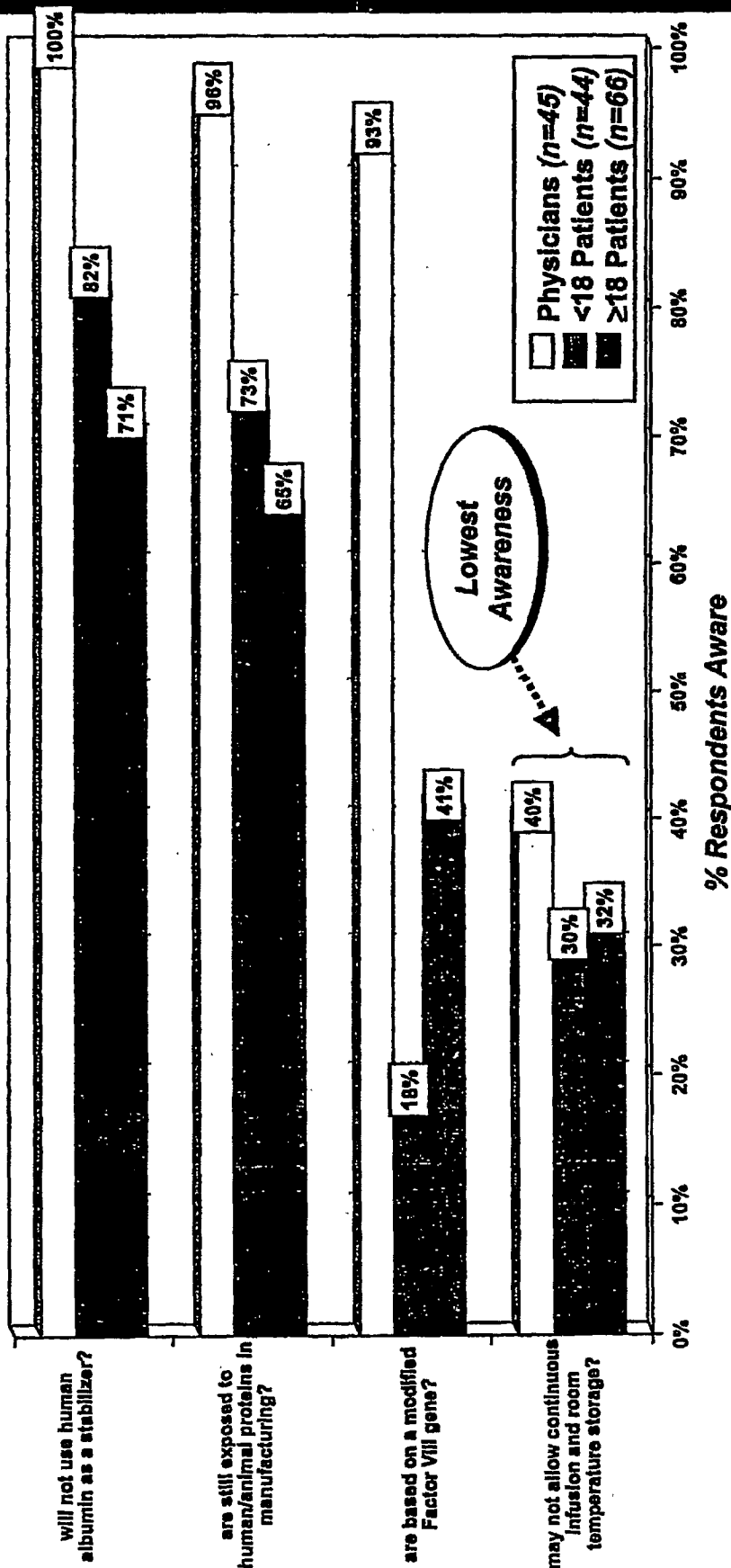
42
GH001058

The lowest level of awareness was expressed over new products having different stability profiles affecting continuous infusion and room temperature storage.

European Findings

New Product Awareness*

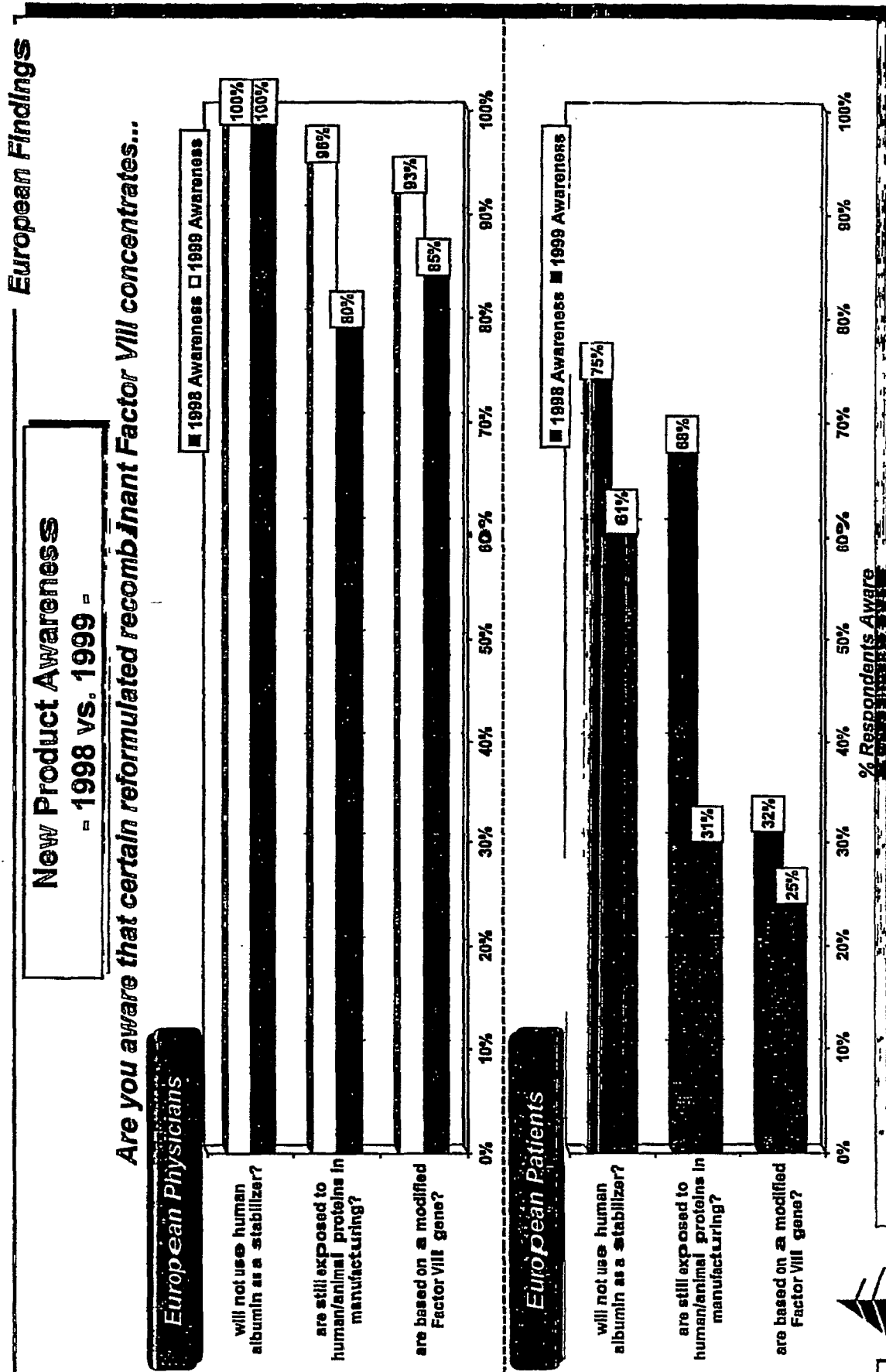
Are you aware that certain reformulated recombinant Factor VIII concentrates...



*Refacto users demonstrate a much higher level of awareness of all these issues than do Recombinate and Kogenate users

MARTEC

While European patients' awareness has improved since last year in two areas, it still is low regarding the use of a modified gene.



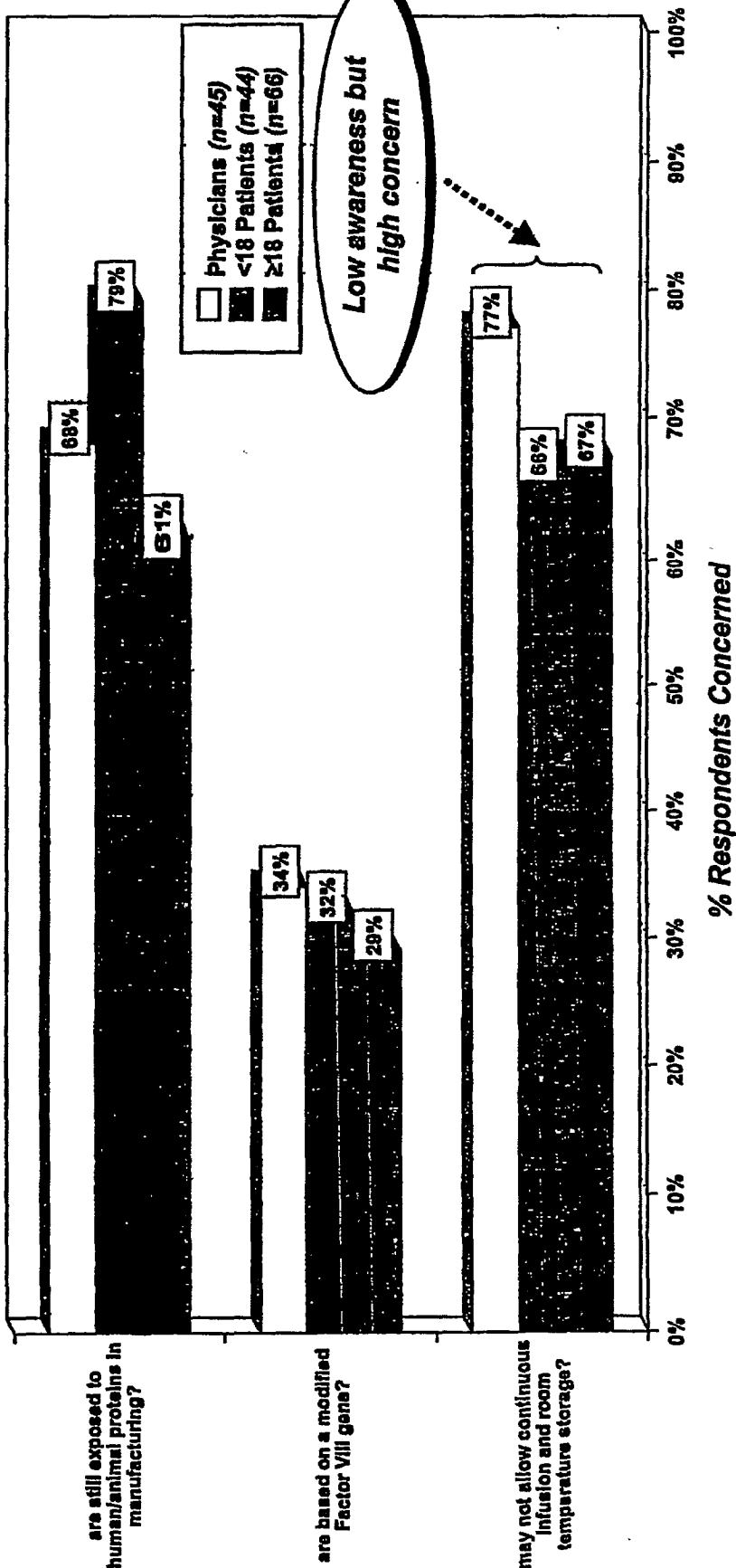
MARTEC

A high level of concern was expressed over not allowing continuous infusion and room temperature storage.

European Findings

New Product Concerns*

Is it a concern to you that certain reformulated recombinant Factor VIII concentrates...



*Refacto users typically express less concern over these issues than do Recombinate and Kogenate users



Comments support the previous data...

European Findings

New Product Concerns

Comments/Quotes

"It's not a problem Factor VIII can be well stabilized anyway with sucrose or glucose

- UK Physician

"Eliminating human albumin will reduce the risk of viral transmission."

- Italian, ≥18 Patient

"This still provides the theoretical risk of infection from known and unknown viruses "

- Spanish Physician

"Any exposure to human or animal proteins poses a risk of viral infection "

- Swedish, <18 Patient

"No adverse events have been observed as of yet due to the modified Factor VIII gene I don't think is a concern "

- Danish Physician

"I don't know enough about genetics to answer this, but I'm not too concerned about a modified gene "

- French, ≥18 Patient

"This is a concern You need both continuous infusion and room temperature storage to use during surgery "

- German Physician

"Without room temperature storage, my son can't take his product to school " - French, <18 Patient

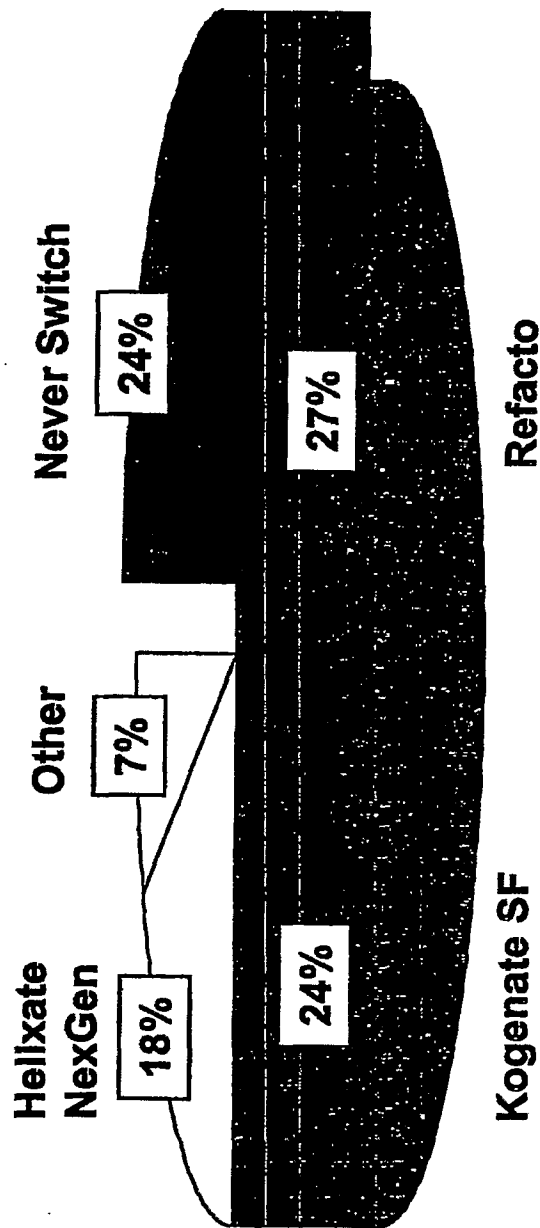


MARTIS

On average, European physicians expect 24% of their patients not to switch to a reformulated product. Refacto is slightly more likely to be the product of choice for those that do switch.

European Findings

What % of Patients Will Switch to Each Product?
- European Physicians -



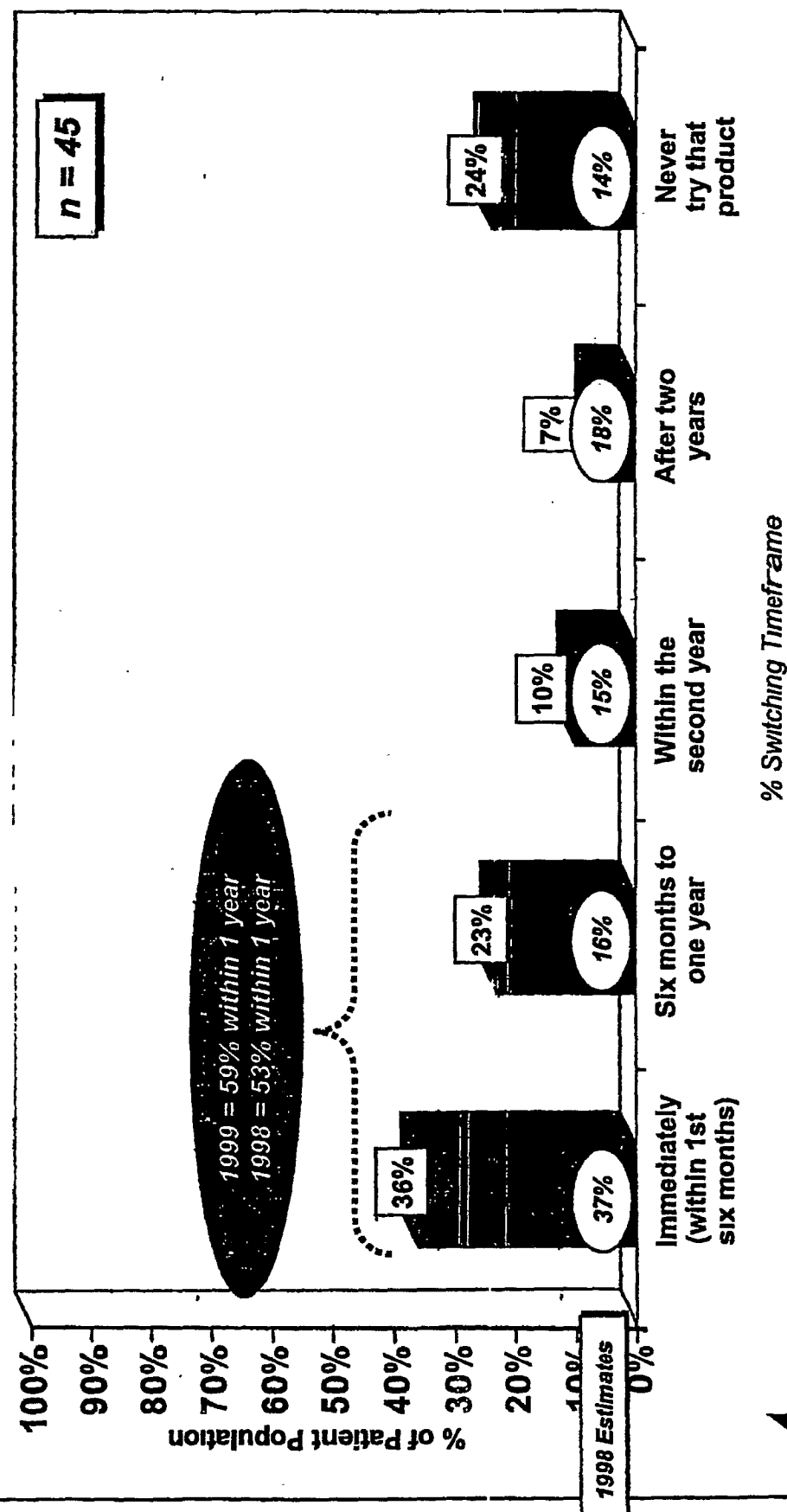
$n = 45$



European physicians expect fewer patients to switch to a reformulated product now (76%) than they did last year (86%). The speed of the expected switching, however, appears to have increased slightly.

European Findings

European Physicians Switching Timing to a Reformulated Product

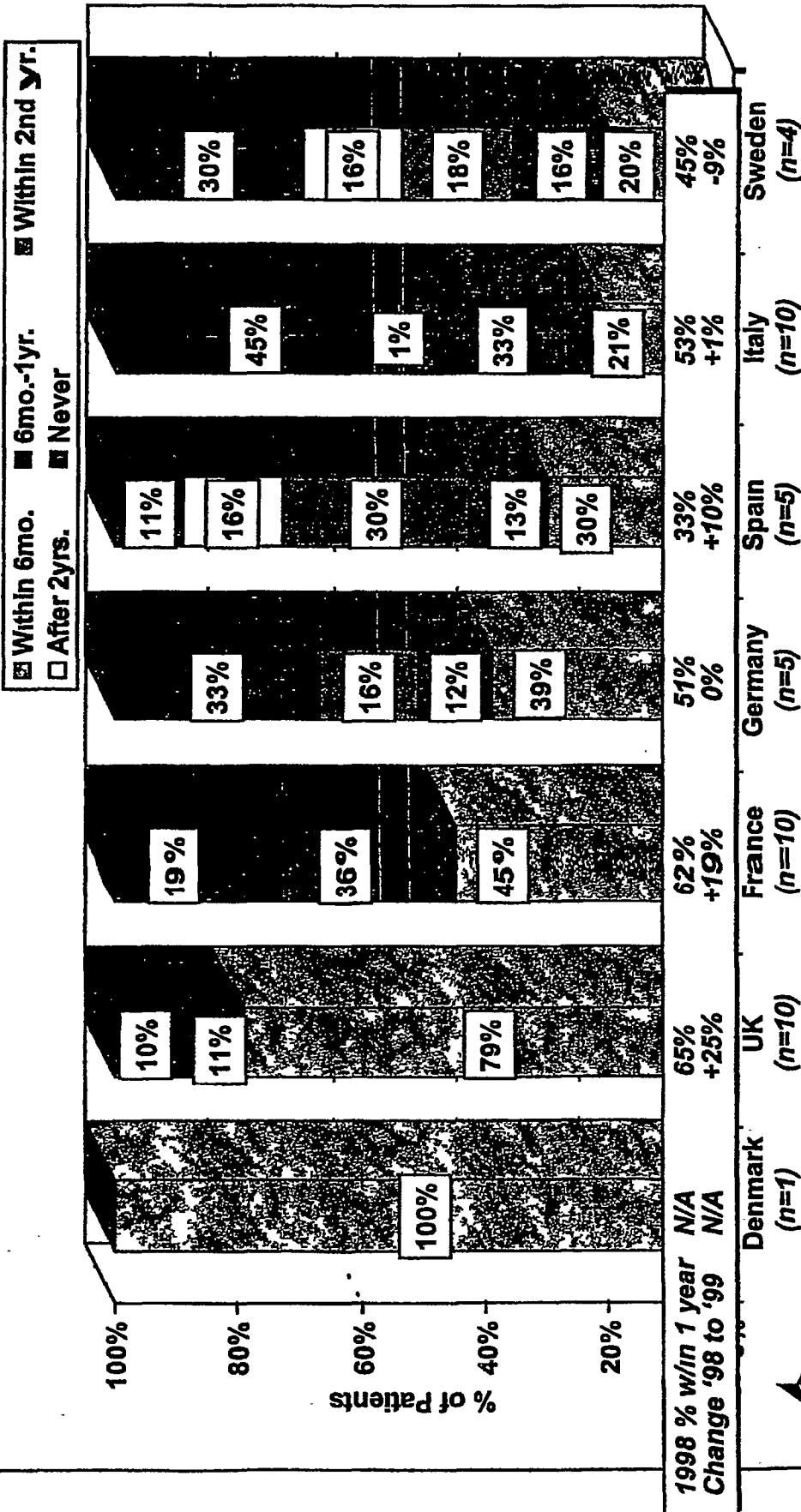


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U.K. and Danish physicians expect their patients to switch to reformulated products the most quickly.

European Findings

**Switching Timing by Country
- European Physicians -**



Concern over availability was often mentioned as a reason for delaying switching to the reformulated products.

European Findings

Physicians Switching Timing Explanations

Comments/Quotes

"20% of patients are already on Kogenate and 20% are already Recombinate. 100% of those patients would switch immediately to the next generation of those two products "

- UK Physician

"Due to availability and price, switching would take between 6 months and 1 year."

- Italian Physician

"I need to see more experience with those products The current products my PTPs are on are so good I see no need to rush switching "

- Swedish Physician

"I would switch to the safer product, but supply must be answered first "

- French Physician

"When the new version is available and studies show good tolerance and safety, then I would switch all my patients "

- Danish Physician



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Kogenate users appear to be very brand loyal as they are most likely to try Kogenate SF. Without a next generation Baxter product, Recombinate users would likely try Refacto.

European Findings

Reformulated Product Most Likely to Try - European Patients -

	<u><18</u>	<u>≥18</u>	<u>Recombinate Users</u>	<u>Kogenate Users</u>
Kogenate SF	48%	28%	20%	86%
Refacto	36%	52%	65%	7%
Helixate NexGen	16%	7%	5%	7%
Other	0%	14%	10%	0%
- Recombinate next generation		- 10%	- 10%	
	n = 25	n = 29	n = 20	n = 14

Indicates strong brand loyalty

~half of the patients either had no preference or could not answer this question without more information or would never switch to any of these products

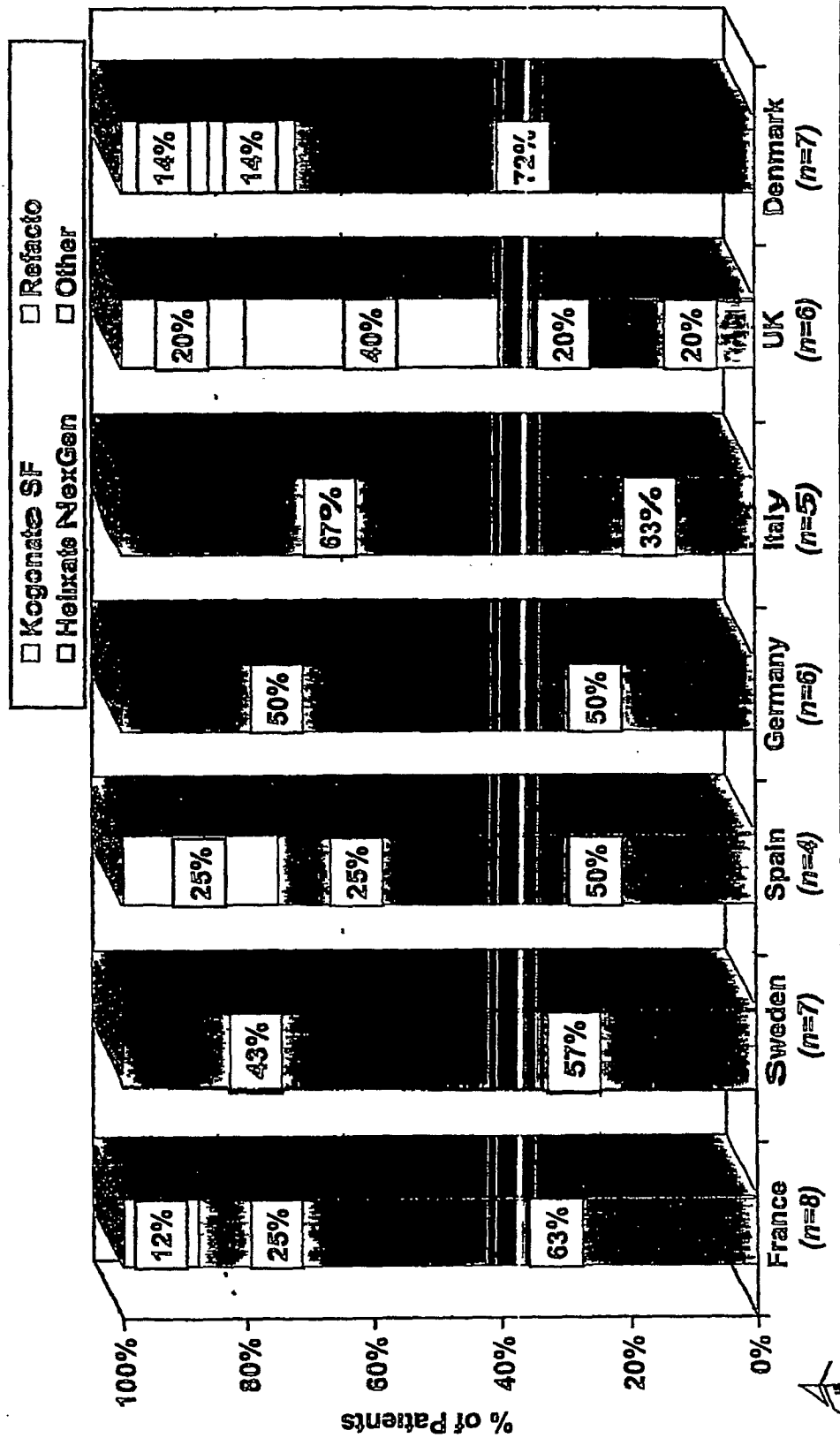


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Danish and Italian patients would be the most likely to try Refacto.

European Findings

Reformulated Product Most Likely to Try
= European Patients

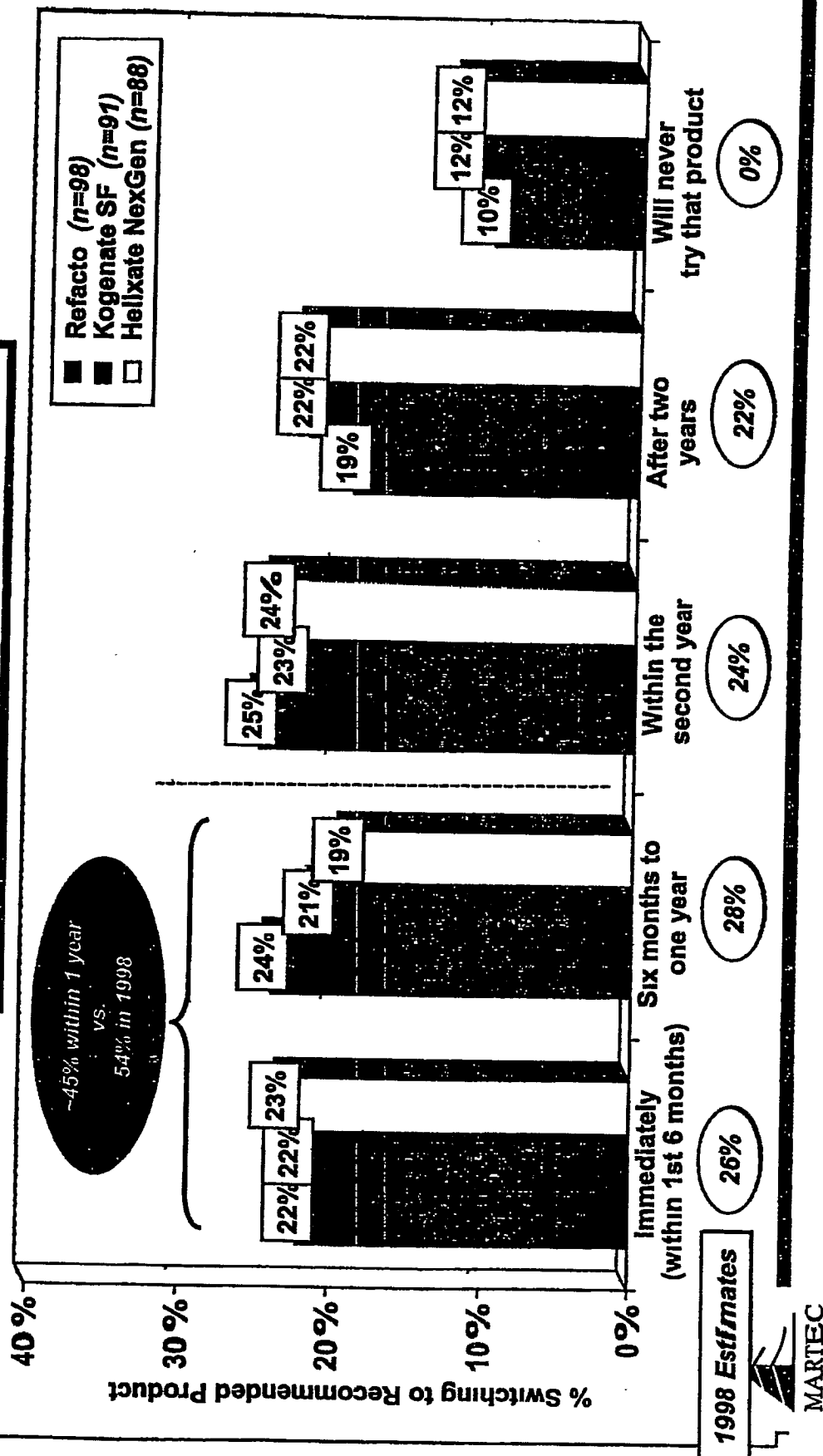


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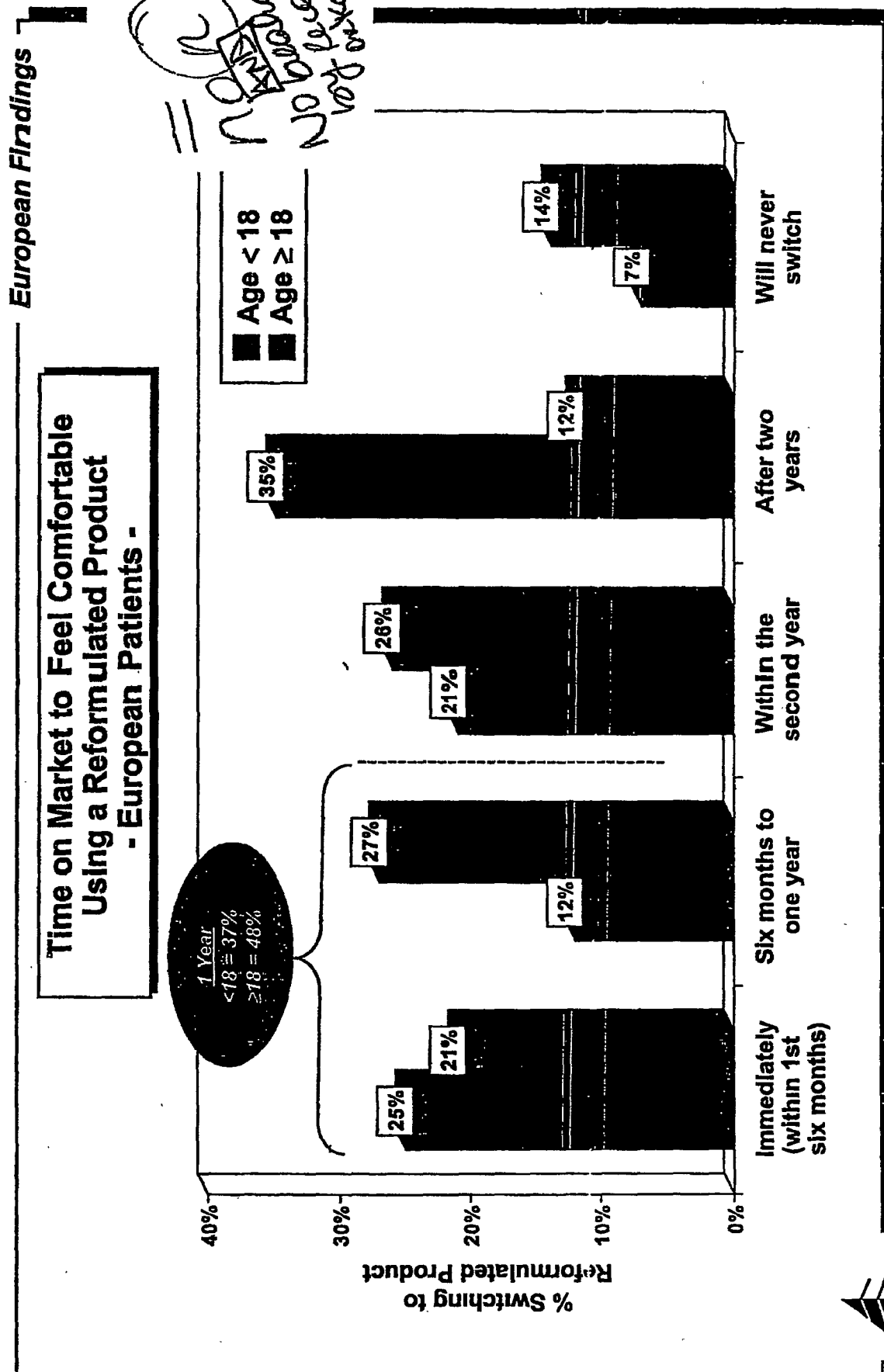
Regardless of the product, approximately 45% of patients would need it to be on the market for a year or less to feel comfortable using it. This is down from 54% reported in 1998.

European Findings

Time on Market to Feel Comfortable Using a Reformulated Product - European Patients -



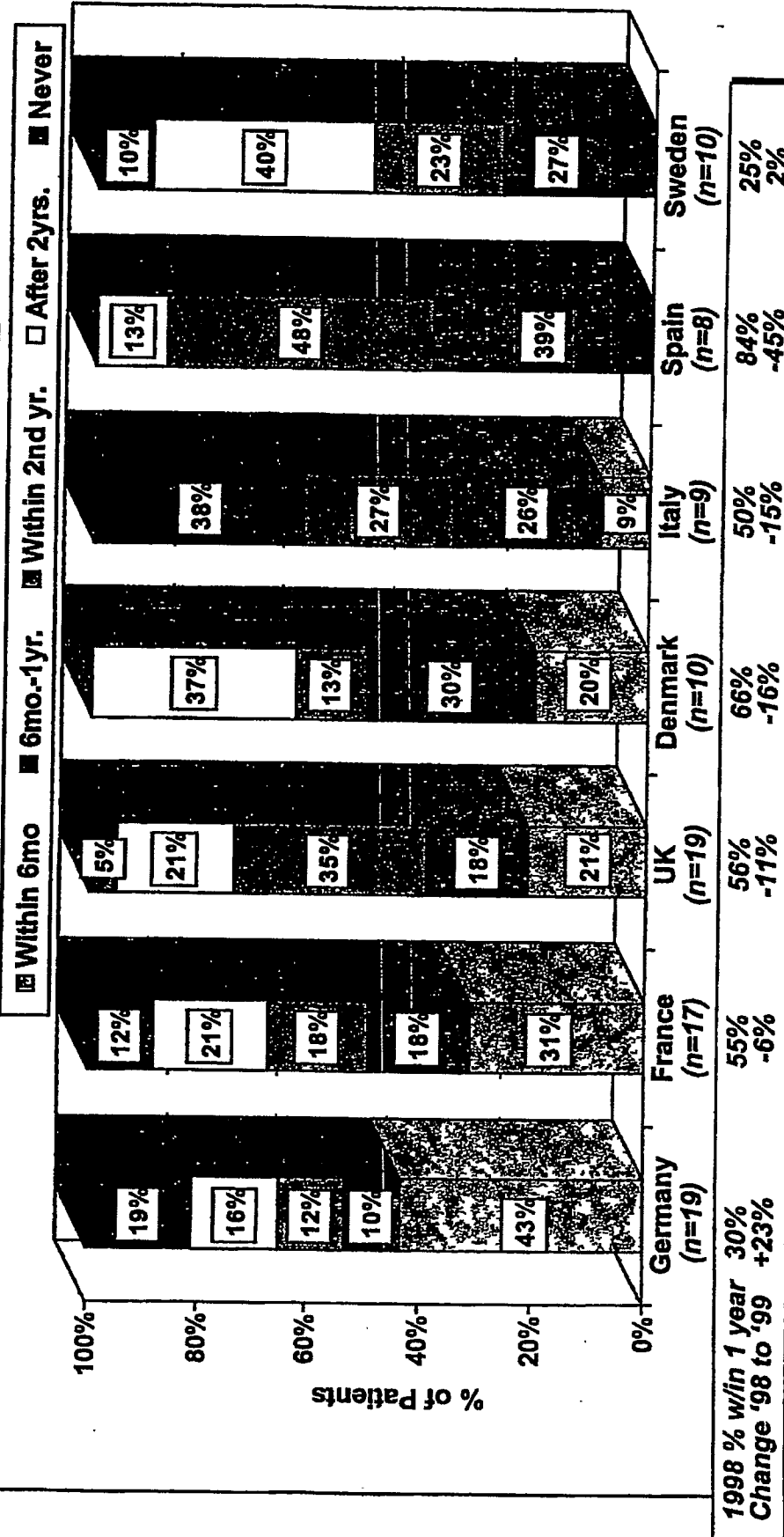
Older European patients are more likely to switch early or not at all.



Excluding German patients, most patients are less likely this year to try one of the newly reformulated products within its first year.

European Findings

Time on Market Needed to Feel Comfortable with Reformulated Products - European Patients by Country -



Comments reveal that the physician's recommendation plays a critical role on deciding if and when to switch.

European Findings

**Patients Switching Timing
Explanations**

Comments/Quotes

"I would switch to any safer product immediately as long as it were approved by my doctor "

- Danish, ≥18 Patient

"I would consider using Refacto, but would like more information on how it works and if it will always be available About 6 to 12 months would be necessary for this "

- Italian, ≥18 Patient

"I would wait about one year to see how other patients respond to the new products But, the decision also depends on the physician's advice "

- French, <18 Patient

"I would first want to see the effects of the products on other patients, as well as hear what my doctor has to say "

- UK, <18 Patient

"I would wait a couple of years to see the trial results of any product my son would take The new product must be of better quality for us to switch "

- Spanish, <18 Patient



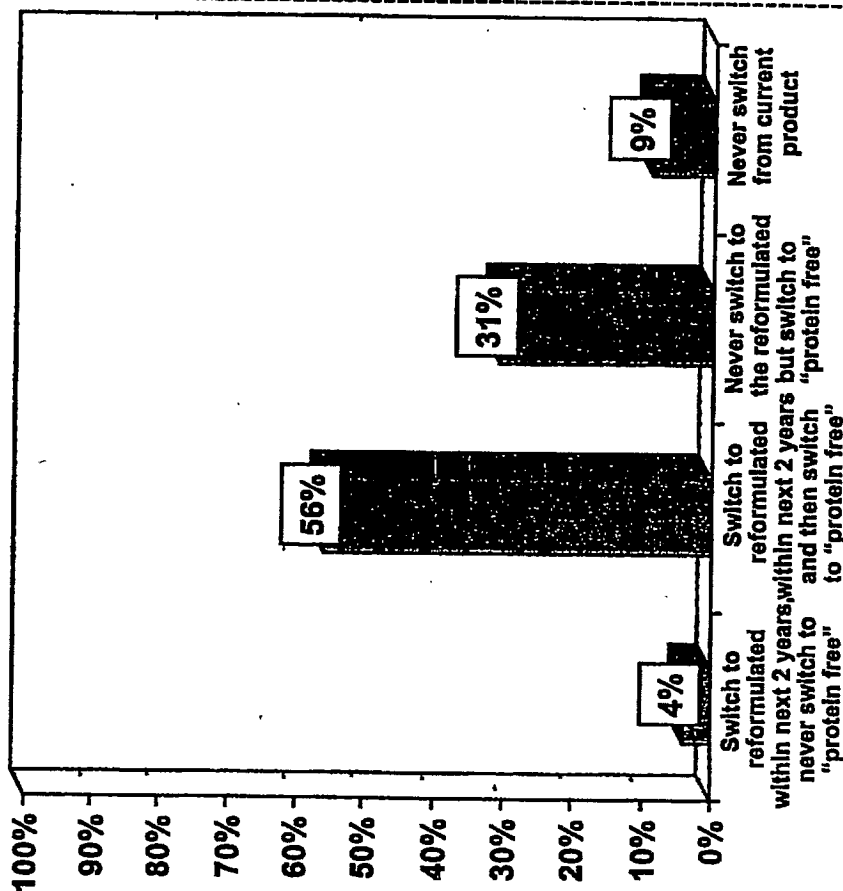
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European physicians expect the majority of their patients to switch first to the reformulated product and then to a "protein free" product.

European Findings

Switching Scenarios - European Physicians -

Comments/Quotes



"Most of my patients would switch to the safest product available, when available. However, some patients would not switch for fear of inhibitors."
- Italian Physician

"Because of the improved safety of each product, most would switch twice. Plasma patients would stay on plasma."
- German Physician

"Certain patients would not switch every 2 years. It is difficult to make patients switch when they are satisfied with their product."
- French Physician

"Plasma users now will stay on plasma. Some recombinant users will wait for the best product, but most switch to the safest product available."
- French Physician



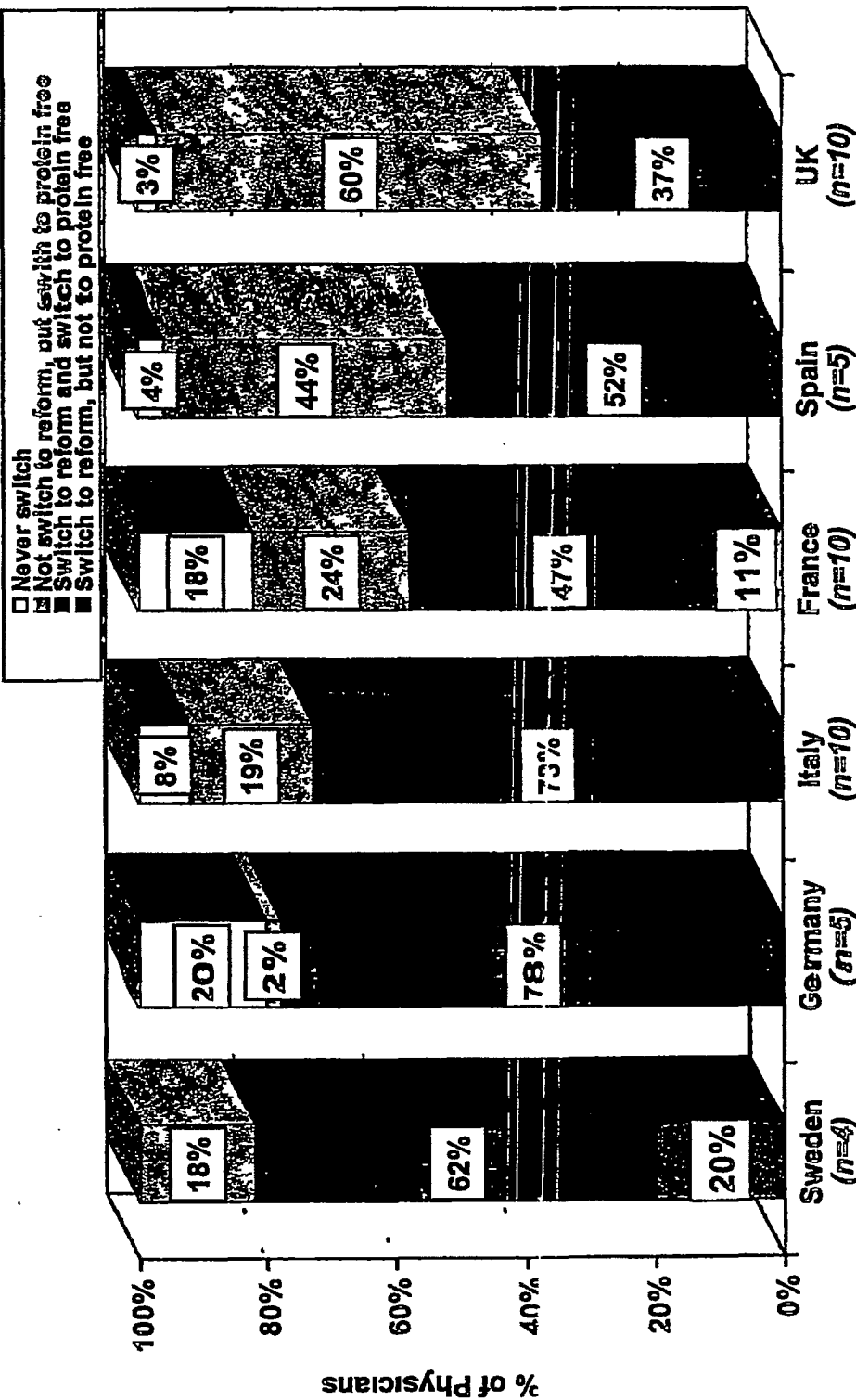
MARTEC

U.K. physicians believe the majority of their patients will not switch to a reformulated product, but will wait for a protein free product.

European Findings

Switching Scenarios

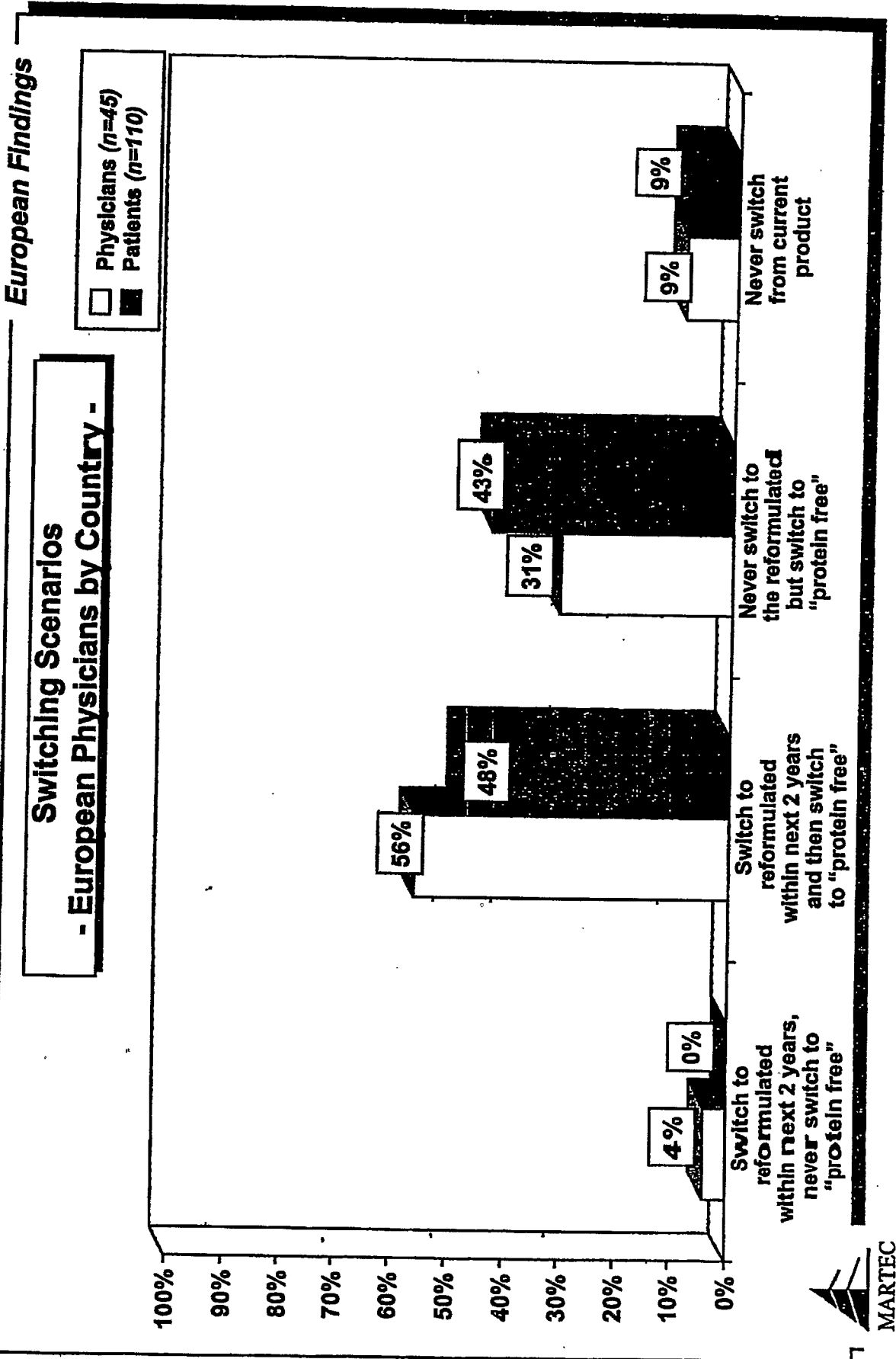
- European Physicians by Country -



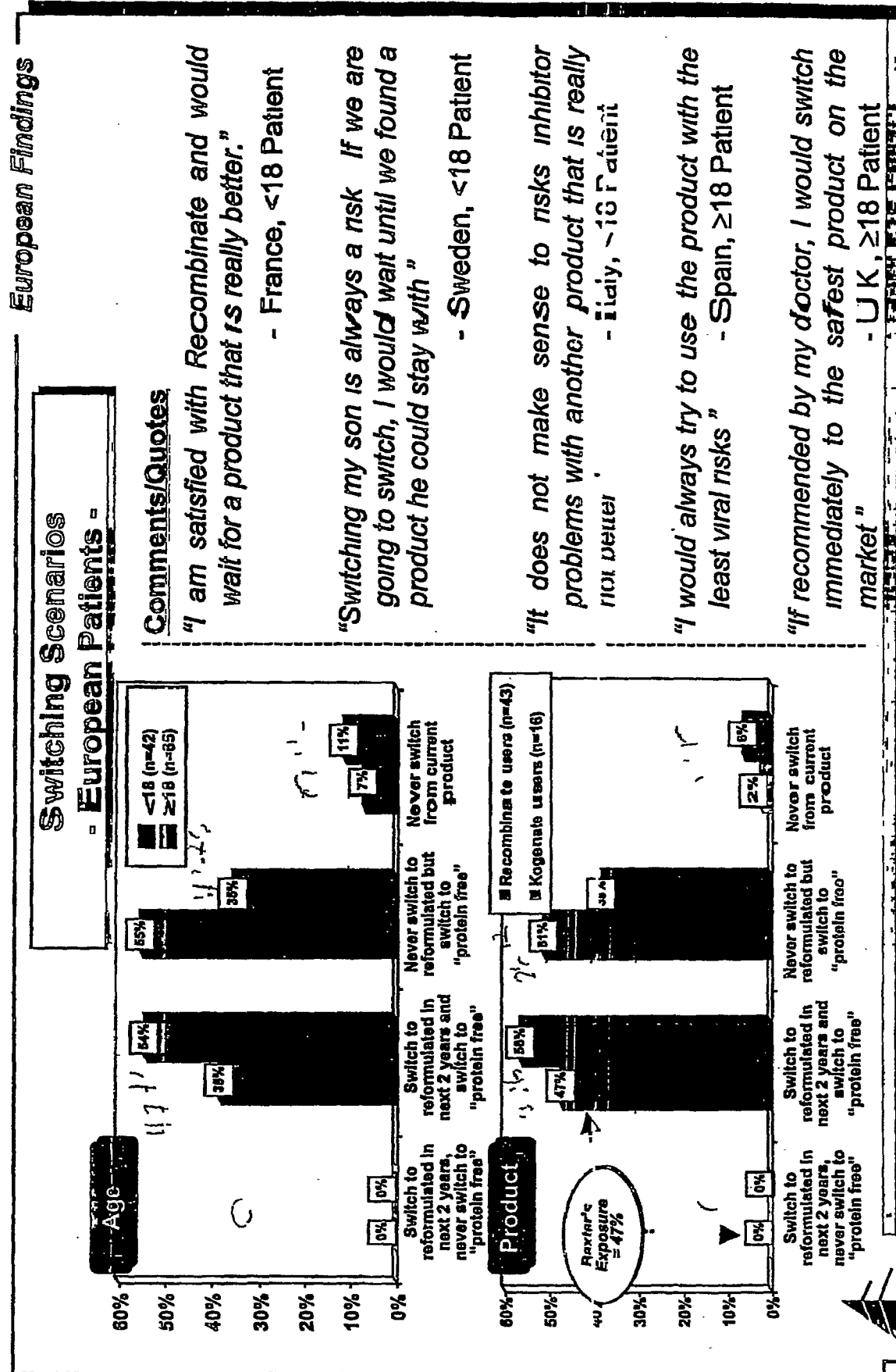
Danish physician could not answer this question without more clinical data



Patients say they are more likely to wait for the protein free product than physicians predict. However, it is the physician that has the most influence over the decision to switch.



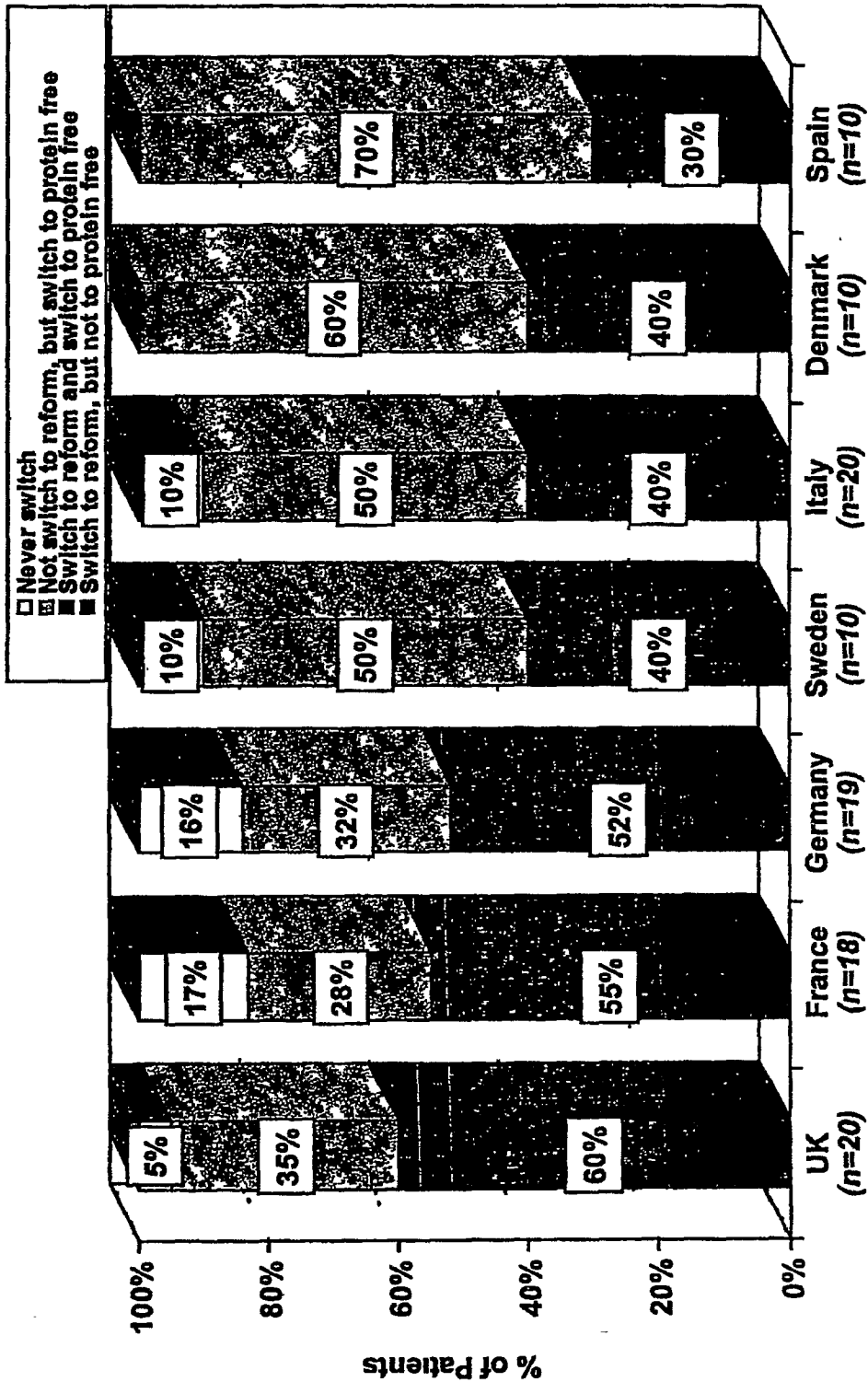
Younger patients and Recombinate users are more likely to wait for the protein free product before they switch.



Spanish and Danish patients are most likely to wait for the protein free product before they switch.

European Findings

**Switching Scenarios
- European Patients by Country -**

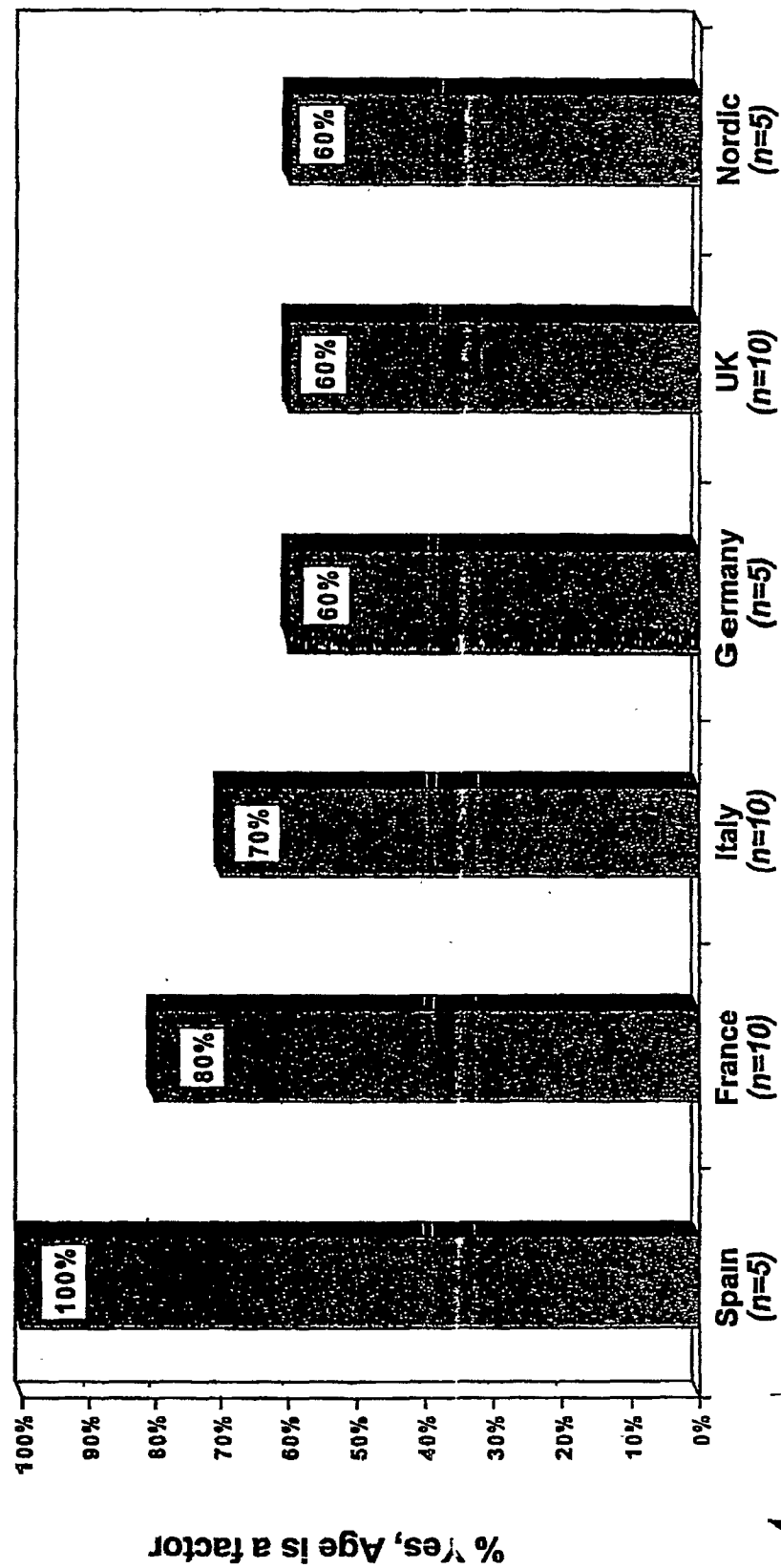


Physicians are less likely to switch older patients as they are comfortable with their current products and fear the risk of inhibitors from new products.

European Findings

Is Patient's Age a Factor in
Deciding to Switch Products?

European Physicians



Typically, the youngest patients receive the best products.

European Findings

**Is Patient's Age a Factor in
Deciding to Switch Products?**

Comments

Comments/Quotes

"Children and younger patients will immediately use the new products."

- Spanish Physician

"The younger patients should be exposed to as few concentrates as possible. Therefore, they should always start with the best product available."

- Swedish Physician

"If the patients are children, they get the recombinant product. The older patients have already been on other products and are afraid of inhibitor occurrence. Cost and availability are factors as well"

- Italian Physician

"It's a matter of price. If the new products are cost effective, then all patients would get them regardless of age."

- German Physician

"The older patients have the same rights as the younger ones to receive the best possible and safest product."

- Danish Physician

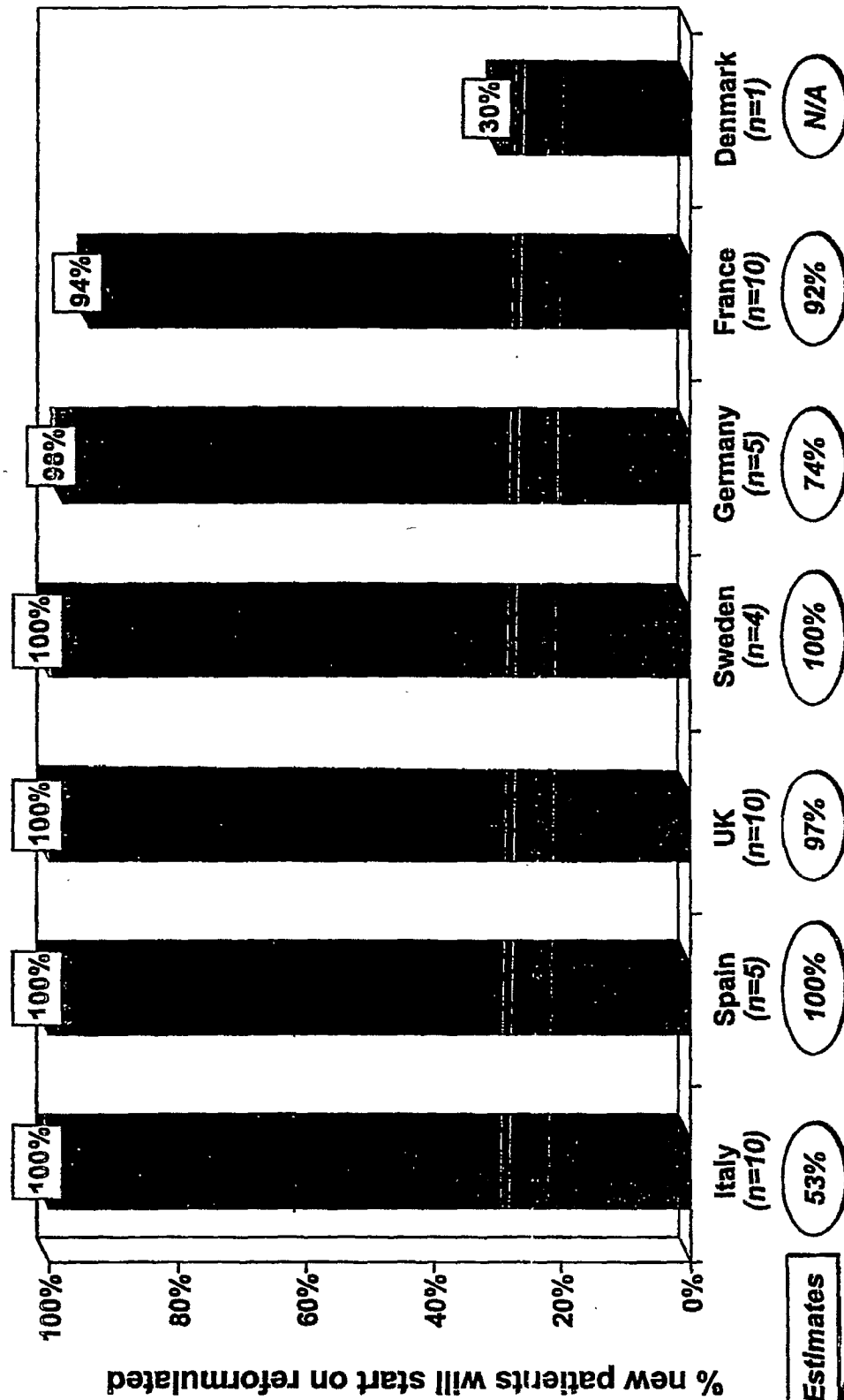


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With the exception of the Danish physician, European physicians expect nearly all PUPs to start on the reformulated products once they become available. Italy and Germany are up from 1998.

European Findings

% Newly Diagnosed on Reformulated



1998 Estimates

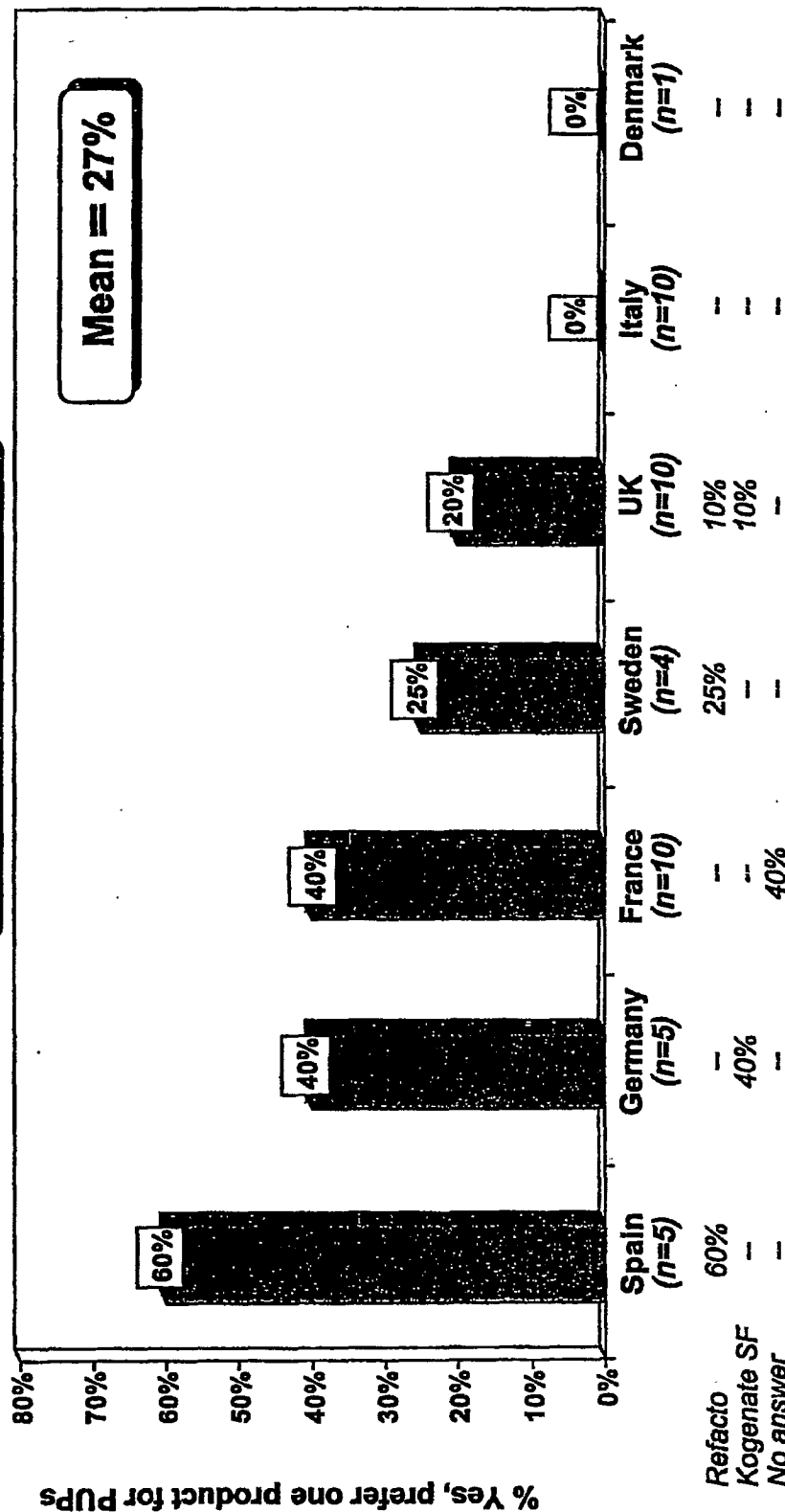


When a preference does exist for PUPs in Europe, that preference is more often for Refacto.

European Findings

Will One Reformulated Products be Preferred for PUPS?

European Physicians



MARTEC

While most physicians commented that the reformulated products will be viewed equally, a few expressed specific preferences.

European Findings

Will One Reformulated Product be Preferred for PUPS?

Comments

Comments/Quotes

"At this stage it does not look like one reformulated product is safer or better than another "

- Italian Physician

"Safety will be similar so it will depend upon availability "

- French Physician

"I have heard many good things about Refacto so it will most likely be that product "

- Spanish Physician

"Refacto contains no plasma so that would be preferred for the PUPS

- UK Physician

"Kogenate SF will be the first new product on the market in the UK, so that will be the product given to PUPS "

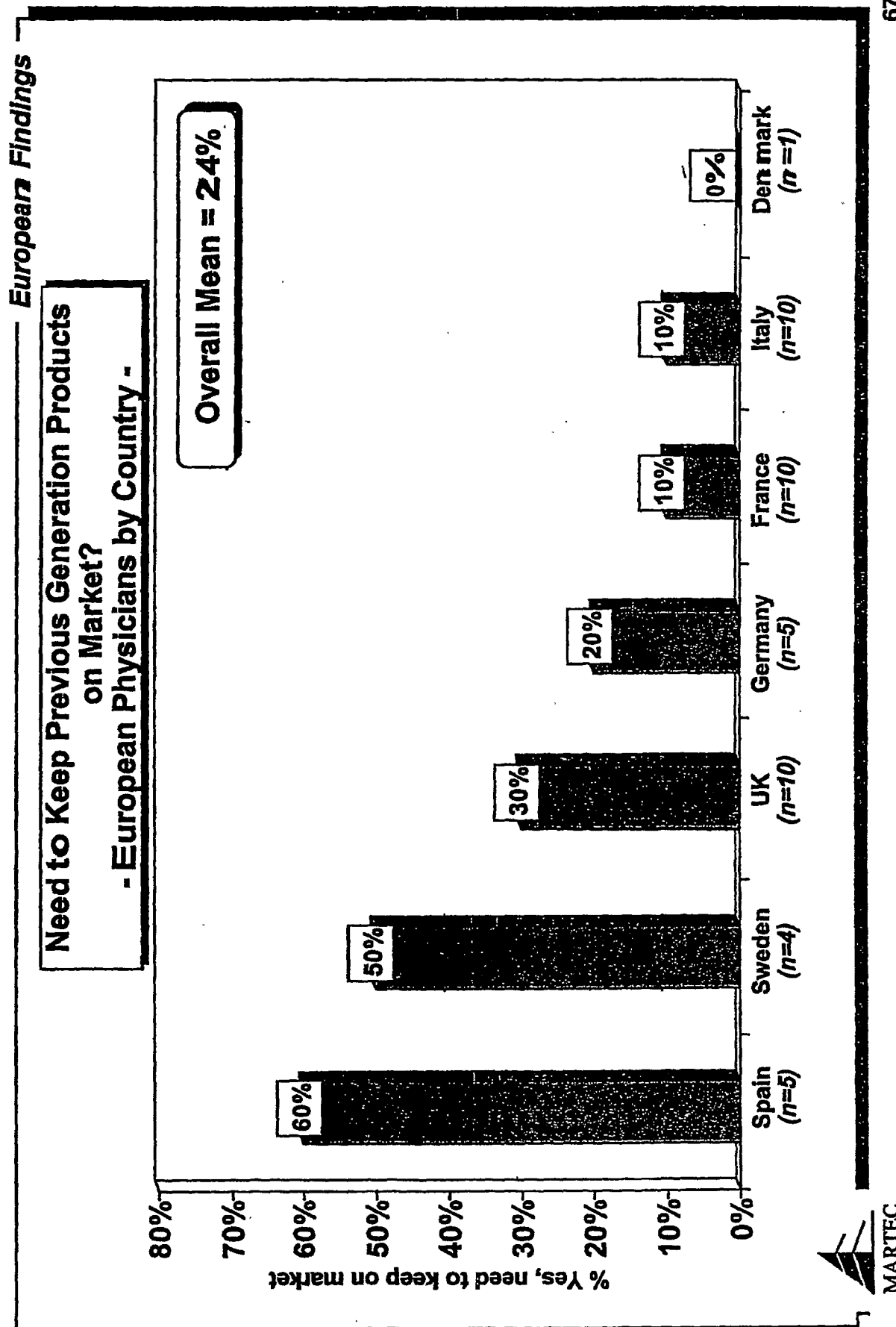
- UK Physician

"I would say Kogenate SF, because we have more familiarity with that product's predecessor "

- French Physician



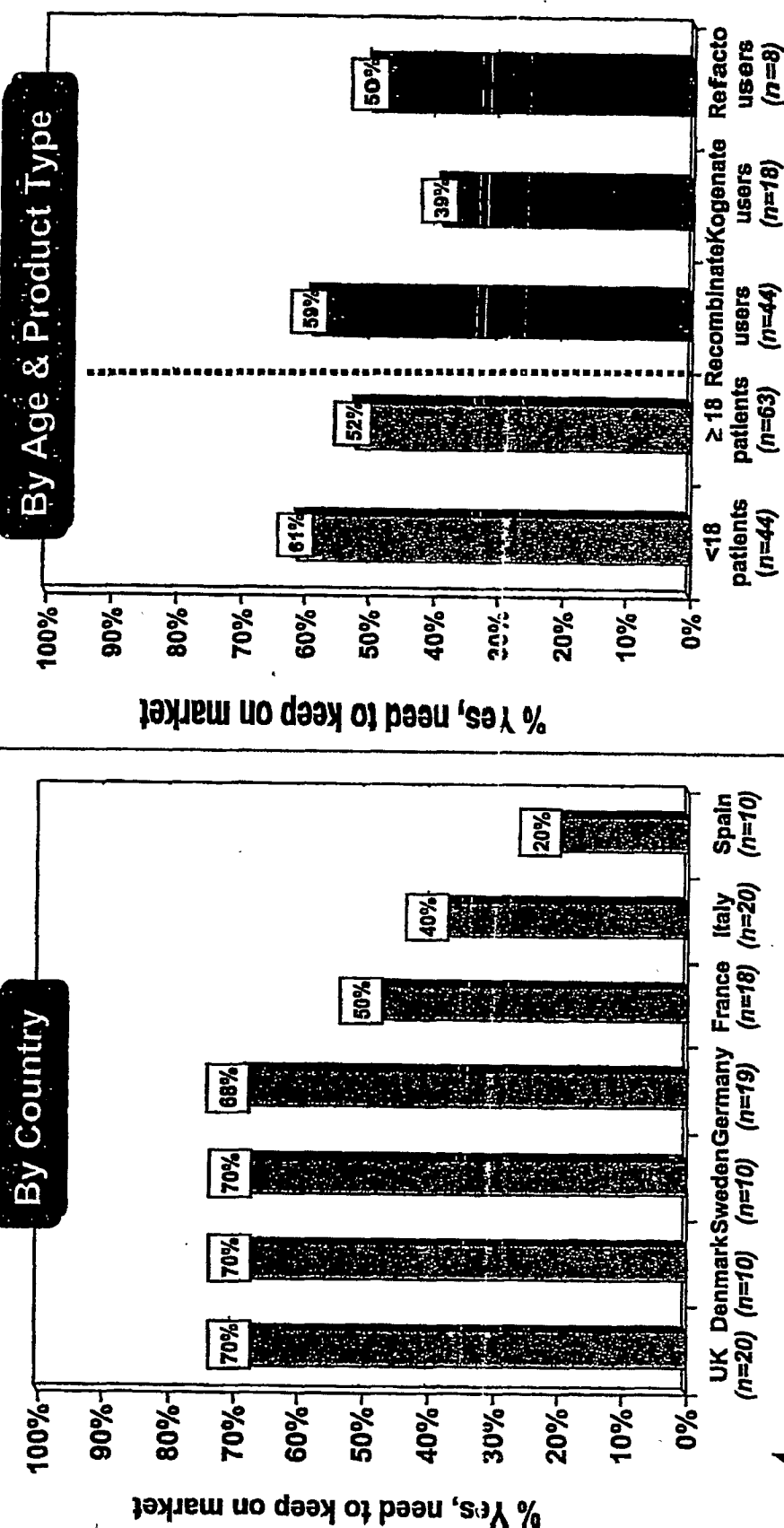
Most European physicians do not see the need to keep previous generation products on the market once later generation products are introduced.



Kogenate users and Spanish patients see the least need to keep previous generation products on the market.

European Findings

Need to Keep Previous Generation Products on Market? - European Patients by Country and by Age -



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Inhibitor incidence, question of supply and cost are reasons to keep previous products on the market.

European Findings

Need to Keep Previous Generation Products on Market?

Comments

Comments/Quotes

"I will always use the new product if it is proven safer."

- Danish Physician

"It is better to only offer and use the best products available, therefore there is no need to keep the older products around"

- Spanish, ≥18 Patient

"The new product will have enough long-term clinical testing before it's introduced Therefore, there will be no need to keep the old product on the market"

- Spanish Physician

"Why would anyone want an inferior product when their safety is in question?"

- Italian Physician

"It's nice to keep the old product if the new ones are more expensive or have availability problems"

- U K Physician

"You should keep older products around for those who can't tolerate the new ones But it may be expensive to keep two products on the shelf."

- French, <18 Patient



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Nearly three fourths of European physicians value these features enough to limit their use of such products. Continuous infusion was mentioned slightly more often than room temperature storage.

European Findings

Convenience Features with New Products

European Physicians

Will lack of these features influence your opinion of the new products?

No

28%

72%

Yes

% concerned over lack of...

- Continuous infusion 19%
- Room temperature storage 14%
- Both issues/ one not specified 39%

Comments/Quotes

"It causes me concern If the product is less stable, it may lead to a higher incidence of inhibitors "

- Italian Physician

"It's a big disadvantage if the product can not be used for continuous infusion "

- French Physician

"This would not be good It is very inconvenient for a patient to have to refrigerate the product "

- Swedish Physician

"It would be a step backwards, but I would still recommend the product Safety is more important than ease of use "

- French Physician



Over 40% of patients are willing to give up these conveniences for a safer product. However, room temperature storage is a tougher convenience for European patients to forego.

European Findings

Convenience Features with New Products

European Patients

Will lack of these features influence your opinion of the new products?

No

41%

59%

Yes

% concerned over lack of...

- Continuous infusion 6%
- Room temperature storage 18%
- Both issues/ one not specified 35%

Comments/Quotes

"If it needs refrigeration, it would be much harder to have real freedom." - U.K., ≥ 18 Patient

"Room temperature storage is important for traveling and continuous infusion is important during surgery " - Denmark, ≥18 Patient

"If no room temperature storage or continuous infusion, then the old products must definitely stay on the market " - France, ≥18 Patient

"If the new product were safer, I'd definitely have to use it regardless of these drawbacks "

- U K, <18 Patient

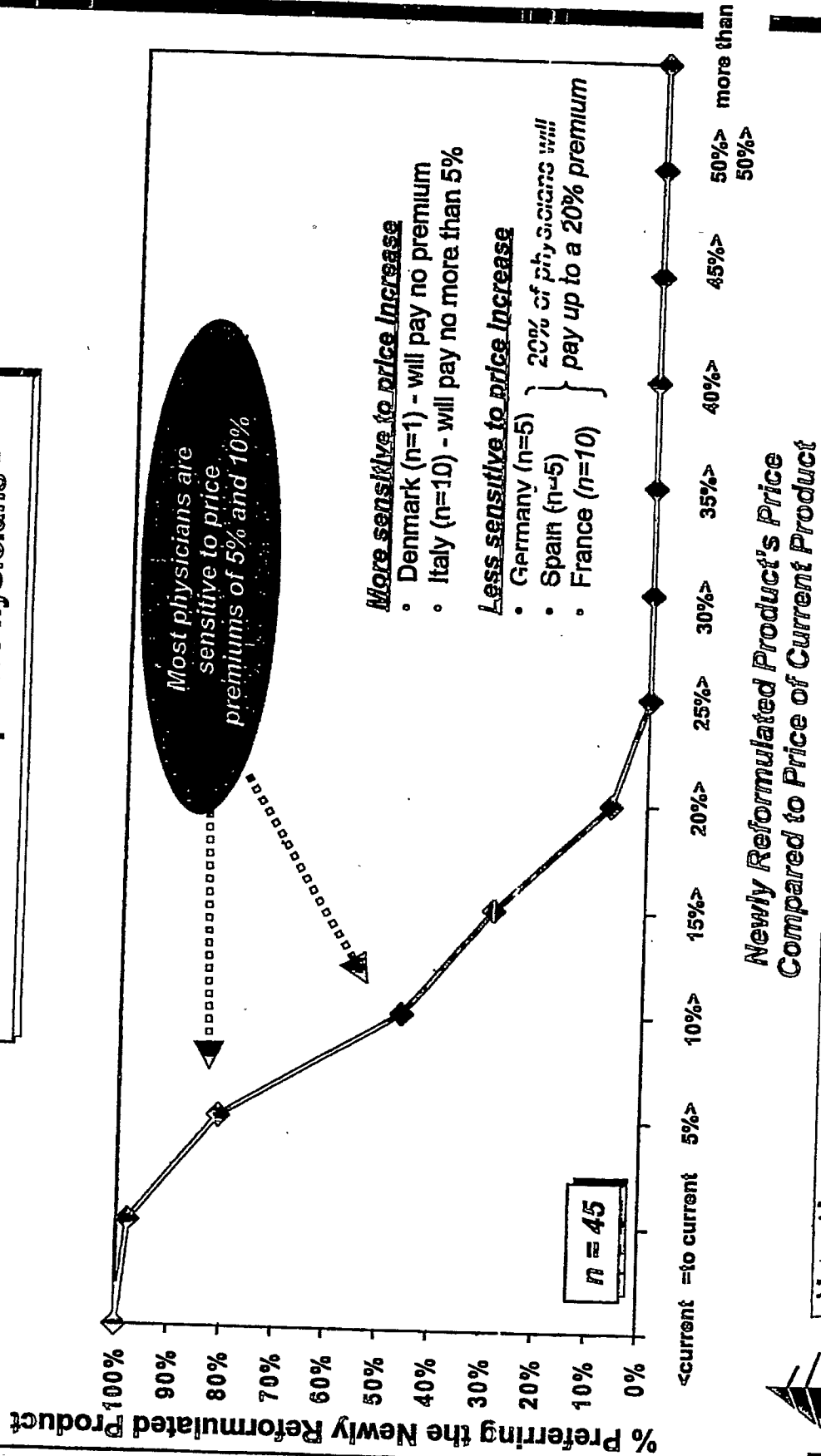
"I'd sacrifice convenience features to get the best medicine for my son " - Sweden, <18 Patient

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Less than half of European physicians place a premium of greater than 5% for the benefits of the newly reformulated products.

European Findings

Pricing Sensitivity - Overall European Physicians -

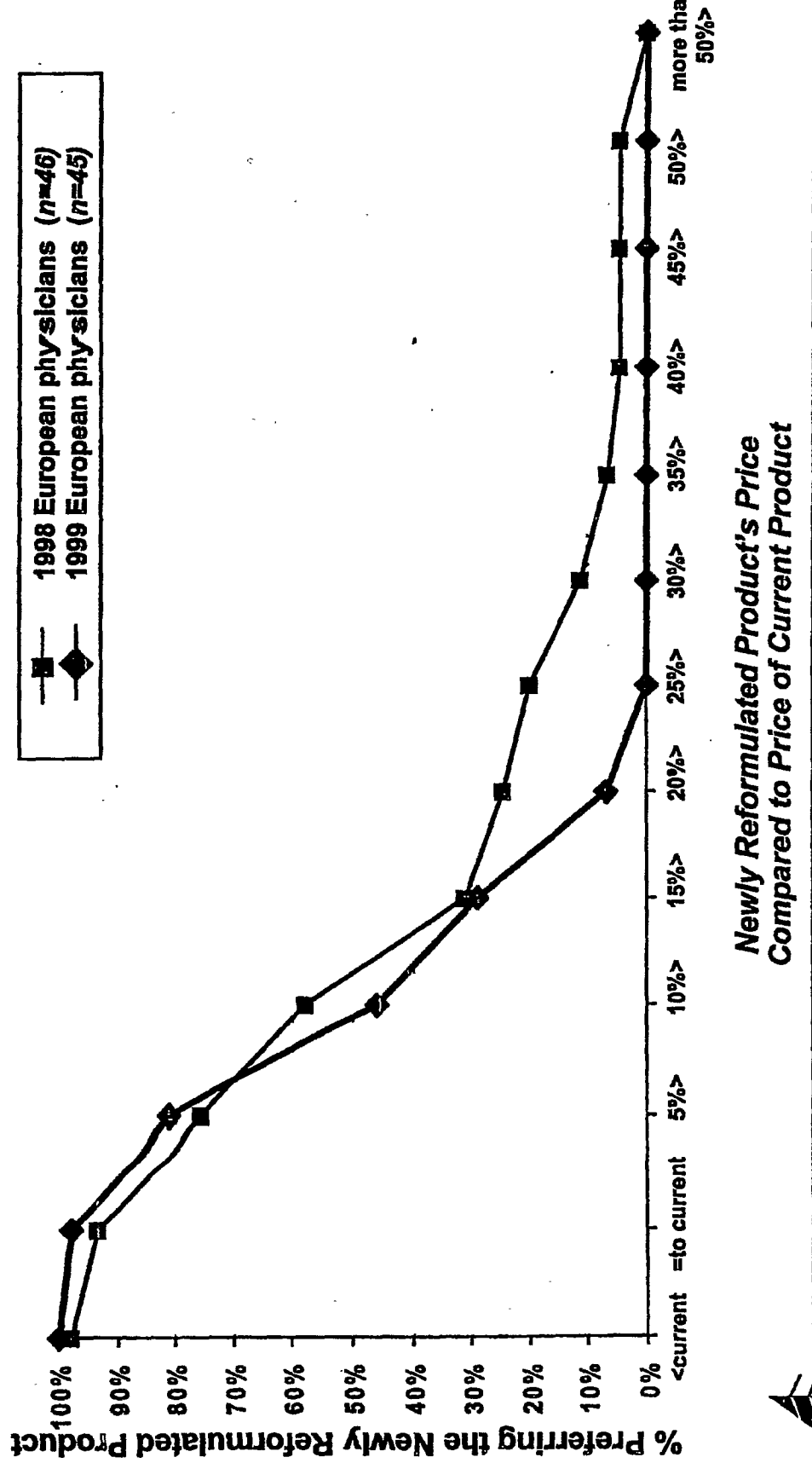


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European physicians are slightly more price sensitive in 1999. Unlike last year, not one physician will tolerate a 25% premium.

European Findings

Pricing Sensitivity
- European Physicians 1998 vs. 1999 -



MARTEC

GH001089

Questions exist about how great of a benefit actually exists with the new products. This, plus tightening fiscal policies, limit how much of a premium can be charged.

European Findings

Pricing Sensitivity Comments

Comments

"Because the advantage of the reformulated product is not that great, not much of a price premium will be tolerated "
 - German Physician

"A price increase of 20% would be very noticeable in prophylaxis treatment "

- Swedish Physician

"It does not matter for the patients, but for the social security a price increase of more than 20% could not be tolerated."
 - Spanish Physician

"More than a 10% premium can not be tolerated. Recombinant products are still not 100% safe."
 - Italian Physician

"I didn't see how we can justify a price increase of more than 10% to our purchasing bodies It would never get approved "
 - U K Physician



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Agenda

Objectives and
Methodology

European Findings

European Conclusions and
Recommendations



The summary of these findings is based upon the 167 Phase I and II European interviews.

European Conclusions

Current Product Environment Findings

- 1 Recombinate is the most used FVIII concentrate as reported by European physicians. However, physicians in Italy and Spain report the greatest use of plasma derived products.
2. Over 50% of the physicians interviewed are prescribing Refacto to six percent of the European patient population
- 3 85% of patients in our sample have switched products at least one time
- 4 Prophylaxis treatment was most common in Sweden (77%) and least common in Italy (16%)
- 5 European patients rely heavily on physicians in making their product decisions
- 6 The promise of a safer product was the key driver of switching. Physicians clearly provide the most influence in the switching decision
- 7 Contentment with current products, followed by cost, are the main reasons plasma derived patients have not switched to recombinant products



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Key European Findings (continued)

European Conclusions

Current Product Environment Findings (continued)

- 8 Less viral risk is the top like of recombinant products for European respondents Still contains human albumin is the top dislike
9. Viral safety is clearly the most important element of safety. This is followed by less/no human protein and inhibitor incidence
10. Recombinant products are viewed as much safer than plasma derived products and receive higher satisfaction ratings Refacto receives the highest satisfaction ratings from patients.
- 11 Recombinate and Kogenate users rate the reputations of both Wyeth and Centeon very low.
12. Recombinate outperformed Kogenate in Availability Refacto leads in Latest Technology, but trails in Long-Term Clinical Experience.
 - Physicians rated all products equal in the most important criteria, Viral Safety
- 13 Patients expressed a slight need for patient educational material, smaller infusion volumes (5 ml) and a greater range (150, 750, 1500 IU) and availability of potency strengths



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Key European Findings (continued)

European Conclusions

New Product Awareness & Knowledge

- 1 Physicians had a much higher knowledge of the new concentrates being developed than did patients. Knowledge of Refacto has surpassed knowledge of Kogenate SF in both groups
2. Most patients (75%) and all physicians knew that human albumin will be removed as a stabilizer for the second generation recombinant products
- 3 Patient knowledge that human protein will be used in the new products' manufacturing processes has increased significantly from 31% in 1998 to 68% in 1999. Physician knowledge grew from 80% to 96%. Concern over this issue was expressed by approximately 70% of all respondents.
- 4 Patients still have little knowledge (32%) of the use of a modified gene. Physician knowledge increased from 85% to 93%. Only 30% of respondents expressed concern over this issue.
- 5 Patients (31%) and physicians (40%) had the least knowledge about new products not allowing continuous infusion and room temperature storage. Concern over this was expressed by 67% of patients and 77% of physicians
- 6 Due to the removal of human albumin as a stabilizer, second generation recombinant products are viewed as safer than the current recombinant products. In fact, many respondents believe these products will be "albumin free"



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Key European Findings (continued)

European Conclusions

Reformulated Switching & Pricing Findings

- 1 Many physicians and patients could not determine their likelihood to switch without clinical trials proving lower exposure to viral contamination, no greater incidence of inhibitor development and doctor recommendations in the patients' case.
2. Physicians indicate more of their patients will switch to Refacto than to Kogenate SF or Helixate NexGen.
3. Kogenate users appear brand loyal, saying they are most likely to try Kogenate SF. Without a next generation Baxter product, most Recombinate users would try Refacto
- 4 Approximately 45% of patients would feel comfortable switching within one year of a reformulated product's introduction, down from 54% in 1998
- 5 Physicians expect 56% of their patients to switch first to a reformulated product, then to a "protein free" one. They expect 31% of patients to wait for the "protein free" product and only 9% never to switch from their current product
- 6 On average, 48% of patients think they will switch twice Overall, 43% say they will wait for a "protein free" product, although these numbers are higher for <18 patients (55%) and Recombinate users (51%)
- 7 Age is a factor in a physician's decision to recommend switching, they are less likely to recommend switching for older patients



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